Acer AL1923 (Dual)

Service Guide

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Conventions

The following conventions are used in this manual:

Screen messages	Denotes actual messages that appear on screen
Note	Gives bits and pieces of additional information related to the current topic.
Warning	Alerts you to any damage that might result from doing or not doing specific actions.
Caution	Gives precautionary measures to avoid possible hardware or software problems.
Important	Reminds you to do specific actions relevant to the accomplishment of procedures.

Preface

Before using this information and the product it supports, please read the following general information.

1. This Service Guide provides you with all technical information relating to BASICCONFIGURATION decided for Acer's "global" product offering. To better fit local market requirements and enhance product competitiveness, your regional office MAY have decided to extend the functionality of a machine (e.g. add-on card, modem, or extra memory capability). These LOCALIZED FEATURES will NOT be covered in this generic service guide. In such cases, please contact your regional offices or the responsible personnel/channel to provide you with further technical details.
2. Please not WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel. If, for whatever reason, a part number change is made, it will not be noted in the printed Service Guide, for ACER-AUTHORIZED SERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the list provided by your regional Acer office to order FRU parts for repair and service of customer machines.

WARNING: (FOR FCC CERTIFIED MODELS)

NOTE: this equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy, and if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, Which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio/TV technician for help.

NOTICE:

1. The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.
2. Shielded interface cables and AC power cord, if any, must be used in order to comply with the emission limits.
3. The manufacturer is not responsible for any radio or TV interference caused by unauthorized modification to this equipment. It is the responsibility of the user to correct such interference.

As an ENERGY STAR® Partner our company has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

WARNING:

To prevent fire or chock hazard, do not expose the monitor to rain or moisture. Dangerously high voltages are present inside the monitor. Do not open the cabinet. Refer servicing to qualified personnel only.

PRECAUTIONS

- Do not use the monitor near water, e.g. near a bathtub, washbowl, kitchen sink, laundry tub, Swimming pool or in a wet basement.

- Do not place the monitor on an unstable trolley, stand, or table. If the monitor falls, it can injure a person and cause serious damage to the appliance. Use only a trolley or stand recommended by the manufacture or sold with the monitor. If you mount the monitor on a wall or shelf, use a mounting kit approved by the manufacture and follow the kit instructions.
- Slots and openings in the back and bottom of the cabinet area provided for ventilation. To ensure reliable operation of the monitor and to protect it from overheating, be sure these openings are not blocked or covered. Do not place the monitor on a bed, sofa, rug or similar surface. Do not place the monitor near or over a radiator or heat register. Do not place the monitor in a bookcase or cabinet unless proper ventilation is provided.
- The monitor should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supplied to your home, consult your dealer or local power company.
- The monitor is equipped with a three-pronged grounded plug, a plug with a third (grounding) pin. This plug will fit only into a grounded power outlet as a safety feature. If your outlet does not accommodate the three-wire plug, have an electrician install the correct outlet, or use an adapter to ground the appliance safely. Do not defeat the safety purpose of the grounded plug.
- Unplug the unit during a lightning storm or when it will not be used for long periods of time. This will protect the monitor from damage due to power surges.
- Do not overload power strips and extension cords. Overloading can result in fire or electric shock.
- Never push any object into the slot on the monitor cabinet. It could short circuit parts causing a fire or electric shock. Never spill liquids on the monitor.
- Do not attempt to service the monitor yourself; opening or removing covers can expose you to dangerous voltages and other hazards. Please refer all servicing to qualified service personnel.
- To ensure satisfactory operation, use the monitor only with UL listed computers which have appropriate configured receptacles marked between 100-240V AC, Min. 3.5A.
- The wall socket shall be installed near the equipment and shall be easily accessible.
- For use only with the attached power adapter (output 12V DC) which have UL,CSA listed license

SPECIAL NOTES ON LCD MONITORS

The following symptoms are normal with LCD monitor and do not indicate a problem.

NOTES

- Due to the nature of the fluorescent light, the screen may flicker during initial use. Turn off the Power Switch and then turn it on again to make sure the flicker disappears.
- You may find slightly uneven brightness in the screen depending on the desktop pattern you use.
- The LCD screen has effective pixels of 99.99% or more. It may include blemishes of 0.01% or less such as a missing pixel or a pixel lit all of the time.
- Due to the nature of the LCD screen, an afterimage of the previous screen may remain after switching the image, when the same image is displayed for hours. In this case, the screen is recovered slowly by changing the image or turning off the Power Switch for hours.

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Chapter 1

Monitor Feature

LCD Panel	Driving system	TFT Color LCD
	Size	19"
	Pixel pitch	0.294 mm
	Viewable angle	AU panel 8ms :70/60/70/70 degree(typ) LG panel-8ms(TLB1/TLB4):70/70/70/70 degree(typ) Samsung-8ms:75/60/75/75 degree(typ) CPT panel-8ms:65/65/70/70 degree(typ) HSDpanel-8ms:TBD
	Brightness	LG panel-8ms(TLB1/TLB4) :300 cd/m^2(typ.) AUO 8ms:270cd/m^2(typ.) Samsung 8ms: 300 cd/m^2(typ.) CPT 8ms:250 cd/m^2(typ.) HSD 12ms:250 cd/m^2 (typ.)
	Contrast Ratio	700:1 (AU M190EN04 V5 ,8ms) 550:1(LG LM190E03 TLB1/TLB4, 8ms) 700:1(Samsung TLM190EX-L01, 8ms) 700:1(CPT CLAA10EA05, 8ms) 600:1(HSD HSD190ME13-A02,8ms)
	Response time	AU (V5) 8ms,LG (TLB1/TLB4) 8ms,Samsung 8 ms, CPT 8ms,HSD 8 ms
Input	Video	R,G,B Analog,
	Separate Sync	H/V TTL
	H-Frequency	31-81KHZ
	V-Frequency	56-75HZ
Display Color		16.2 million Colors
Maximum Dot Clock ®		135MHz
Max Resolution		1280x1024@75HZ

Plug & Play		VESA DDC2B
EPA ENERGY STAY	ON Mode	<40W
	OFF Mode	<2W
Audio output		Rated Power 2.0W rms(Per channel)
Input Connector		D-Sub, DVI-D
Input Video Signal		Analog : 0.7Vp-p,75OHM
Screen Size (Active)		Horizontal : 337.9mm Vertical : 270.3mm
Power Source		90~264 Vac, 47~63HZ
Environmental Considerations		Operating Temp : 5 to 40 degree ; Storage Temp : -20 to 60 degree ; Operating Humidity : 10% to 85%
Weight (N.W.)		TBD
Dimension		TBD

External Controls	Switch	* Power Switch * MENU / EXIT * ^ / Volume * v / Volume * AUTO / ENTER
		* Contrast/brightness * Focus * Clock * H.Position * W.Position * Language * OSD Color temperature * OSD Position & Timeout * Auto Config * Input * Information * Reset * Exit
Regulatory Compliance		cUL, FCC, TUV, CE, ISO13406-2

Timings

The product has 26 memory modes in total. 16 modes are preset and 10 modes are user definable.

MODE NO.	**1**	**2**	**3**	**4**
RESOLUTION	**720 x 400**	**640 x 480**	**640x480**	**640 x 480**
Dot clock(MHz)	**28.321**	**25.175**	**30.24**	**31.5**
f h	**31.469kHz**	**31.469kHz**	**35.0kHz**	**37.861kHz**
H-Total (us)	31.78(900dots)	31.778 (800 dots)	28.571(864 dots)	26.413 (832 dots)
H-Sync (us)	3.813(108dots)	3.813 (96 dots)	2.116 (64 dots)	1.270(40 dots)
H-B-P (us)	1.907(54dots)	1.907 (48 dots)	3.175 (96 dots)	4.064(128 dots)
H-Active (us)	25.42(720dots)	25.422 (640 dots)	21.164 (640 dots)	20.317(640 dots)
H-F-P (us)	0.636(18dots)	0.636 (16 dots)	2.116 (64 dots)	0.762(24 dots)
f v	**70Hz(70.087)**	**60Hz (59.940)**	**66.7 HZ (66.667)**	**72.809Hz**
V-Total (ms)	14.27(449 lines)	16.683 (525 lines)	15.000 (525 lines)	13.735(520 lines)
V-Sync (ms)	0.064(2 lines)	0.064 (2 lines)	0.086 (3 lines)	0.079(3 lines)
V-B-P (ms)	1.112(35 lines)	1.049 (33 lines)	1.114 (39 lines)	0.739(28 lines)
V-Active (ms)	12.71(400 lines)	15.253 (480 lines)	13.714 (480 lines)	12.678(480 lines)
V-F-P (ms)	0.384(12 lines)	0.317 (10 lines)	0.086 (3 lines)	0.237(9 lines)
SYNC. H/V	-/+	- / -	+/+	-/-
POLARITY			Or -/-	
SEP . SYNC	Y	Y	Y	Y

MODE NO.	**5**	**6**	**7**	**8**
RESOLUTION	**640 x 480**	**800 x 600**	**800 x 600**	**800 x 600**
Dot clock(MHz)	**31.5**	**36**	**40**	**49.5**
f h	**37.500kHz**	**35.16kHz**	**37.879kHz**	**46.875kHz**
H-Total (us)	26.667(840 dots)	28.44(1024 dots)	26.40 (1056 dots)	21.333 (1056dots)
H-Sync (us)	2.032 (64 dots)	2.00(72 dots)	3.200 (128 dots)	1.616 (80 dots)

H-B-P (us)	3.810 (120 dots)	3.56(128 dots)	2.200 (88 dots)	3.232 (160 dots)
H-Active (us)	20.317 (640 dots)	22.22(800 dots)	20.00 (800 dots)	16.162 (800 dots)
H-F-P (us)	0.508 (16 dots)	0.67(24 dots)	1.000 (40 dots)	0.323 (16 dots)
f v	**75Hz (75)**	**56.25**	**60Hz (60.316)**	**75Hz (75.000)**
V-Total (ms)	13.333 (500 lines)	17.78(625 lines)	16.58 (628 lines)	13.333 (625lines)
V-Sync (ms)	0.080 (3 lines)	0.06(2 lines)	0.106 (4 lines)	0.064 (3 lines)
V-B-P (ms)	0.427 (16 lines)	0.63(22 lines)	0.607 (23 lines)	0.448 (21 lines)
V-Active (ms)	12.80 (480 lines)	17.07(600 lines)	15.84 (600 lines)	12.80 (600lines)
V-F-P (ms)	0.027 (1 line)	0.03(1 line)	0.026 (1 line)	0.021 (1 line)
SYNC. H/V	- / -	+/+	+ / +	+ / +
POLARITY				
SEP . SYNC	Y	Y	Y	Y

MODE NO.	**9**	**10**	**11**	**12**
RESOLUTION	**800 x 600**	**832 x 624**	**1024 x 768**	**1024 x 768**
Dot clock(MHz)	**50**	**57.283**	**65**	**75**
f h	**48.077kHz**	**49.72kHz**	**48.363kHz**	**56.48kHz**
H-Total (us)	20.80 (1040dots)	20.11(1152 dots)	20.677(1344 dots)	17.71(1328 dots)
H-Sync (us)	2.400 (120 dots)	1.12(64 dots)	2.092(136 dots)	1.81(136 dots)
H-B-P (us)	1.280 (64 dots)	3.91(224 dots)	2.462(160 dots)	1.92(144 dots)
H-Active (us)	16.00 (800 dots)	14.52(832 dots)	15.754(1024 dots)	13.65(1024 dots)
H-F-P (us)	1.120 (56 dots)	0.56(32 dots)	0.369(24 dots)	0.32(24 dots)
f v	**72Hz (72.188)**	**74.55Hz**	**60.004Hz**	**70.07Hz**
V-Total (ms)	13.85 (666 lines)	13.41(667 lines)	16.666(806 lines)	14.27(806 lines)
V-Sync (ms)	0.125 (6 lines)	0.06(3 lines)	0.124(6 lines)	0.11(6 lines)
V-B-P (ms)	0.478 (23 lines)	0.78(39 lines)	0.600(29 lines)	0.51(29 lines)
V-Active (ms)	12.48 (600 lines)	12.55 (624 lines)	15.880(768 lines)	13.60(768 lines)
V-F-P (ms)	0.770 (37 line)	0.02(1 line)	0.062(3 lines)	0.05(3 lines)
SYNC. H/V	+ / +	+/+	-/-	-/-
POLARITY				
SEP . SYNC	Y	Y	Y	Y

MODE NO.	13	14	15	16
RESOLUTION	**1024 x 768**	**1280 x 1024**	**1280 x 1024**	**1152 x 864**
Dot clock(MHz)	**78.75**	**108**	**135**	**108**
f h	**60.02kHz**	**63.981kHz**	**79.976KHz**	**67.5 KHz**
H-Total (us)	16.66(1312 dots)	15.630 (1688 dots)	12.504 (1688 dots)	14.815(1600 dots)
H-Sync (us)	1.22 (96 dots)	1.037 (112 dots)	1.067 (144 dots)	1.185(128 dots)
H-B-P (us)	2.23 (176 dots)	2.296 (248 dots)	1.837 (248 dots)	2.370(256 dots)
H-Active (us)	13.00 (1024 dots)	11.852 (1280 dots)	9.481 (1280dots)	10.667(1152 dots)
H-F-P (us)	0.20 (16 dots)	0.444 (48 dots)	0.119 (16 dots)	0.593(64 dots)
f v	**75.03Hz**	**60.020Hz**	**75.025 Hz**	**75.06 Hz**
V-Total (ms)	13.33 (800 lines)	16.661 (1066 lines)	13.329 (1066 lines)	13.333(900 lines)
V-Sync (ms)	0.05 (3 lines)	0.047 (3 lines)	0.038 (3 lines)	0.044(3 lines)
V-B-P (ms)	0.47 (28 lines)	0.594 (38 lines)	0.475 (38 lines)	0.474(32 lines)
V-Active (ms)	12.80 (768 lines)	16.005 (1024 lines)	12.804(1024 lines)	12.800(864 lines)
V-F-P (ms)	0.02 (1 lines)	0.016 (1 line)	0.013 (1 lines)	0.015(1 lines)
SYNC. H/V	-/-	+/+	+/+	+/+
POLARITY				
SEP . SYNC	Y	Y	Y	Y

A : H-Total O : V-Total

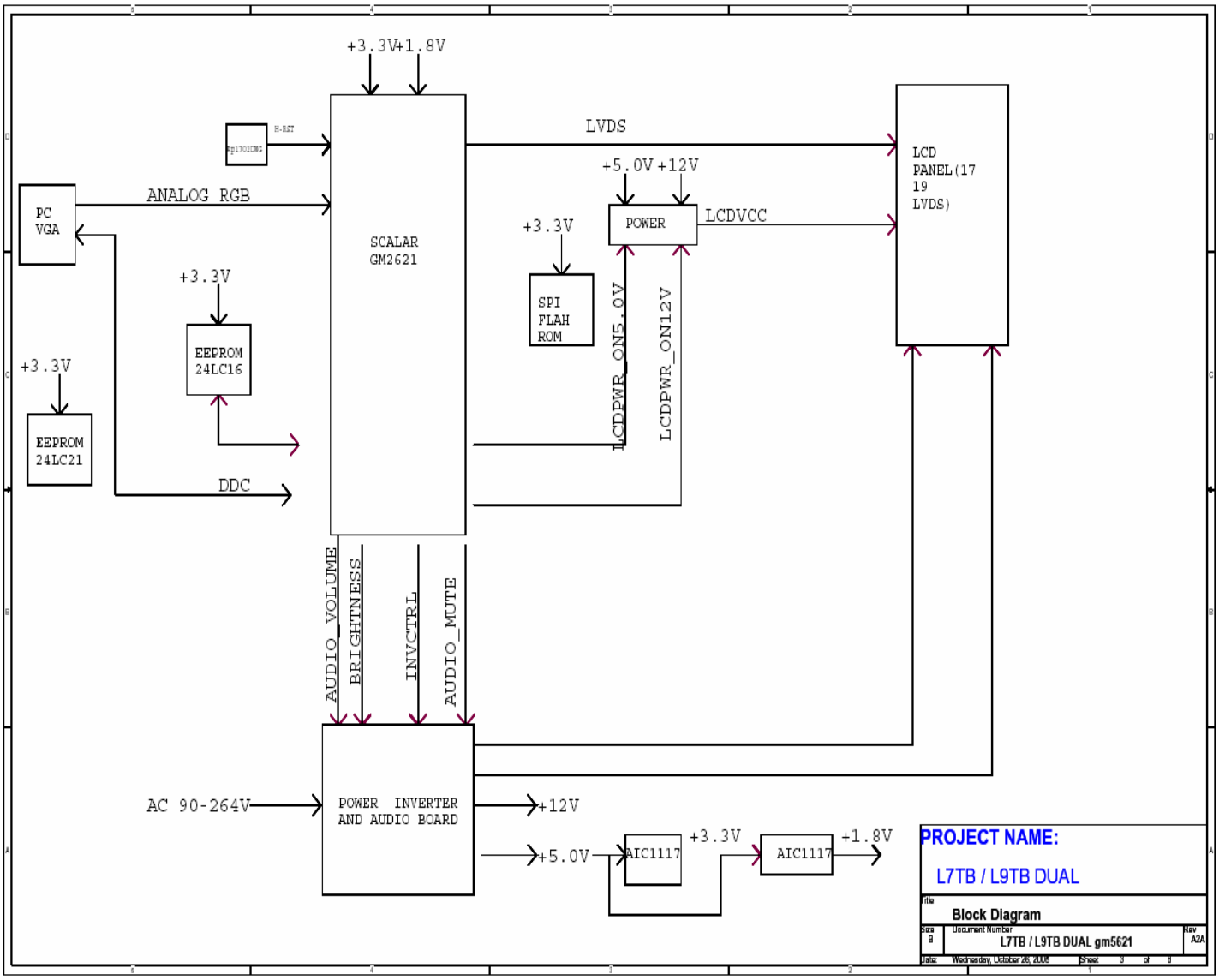
B : H- Sync width P : V- Sync width

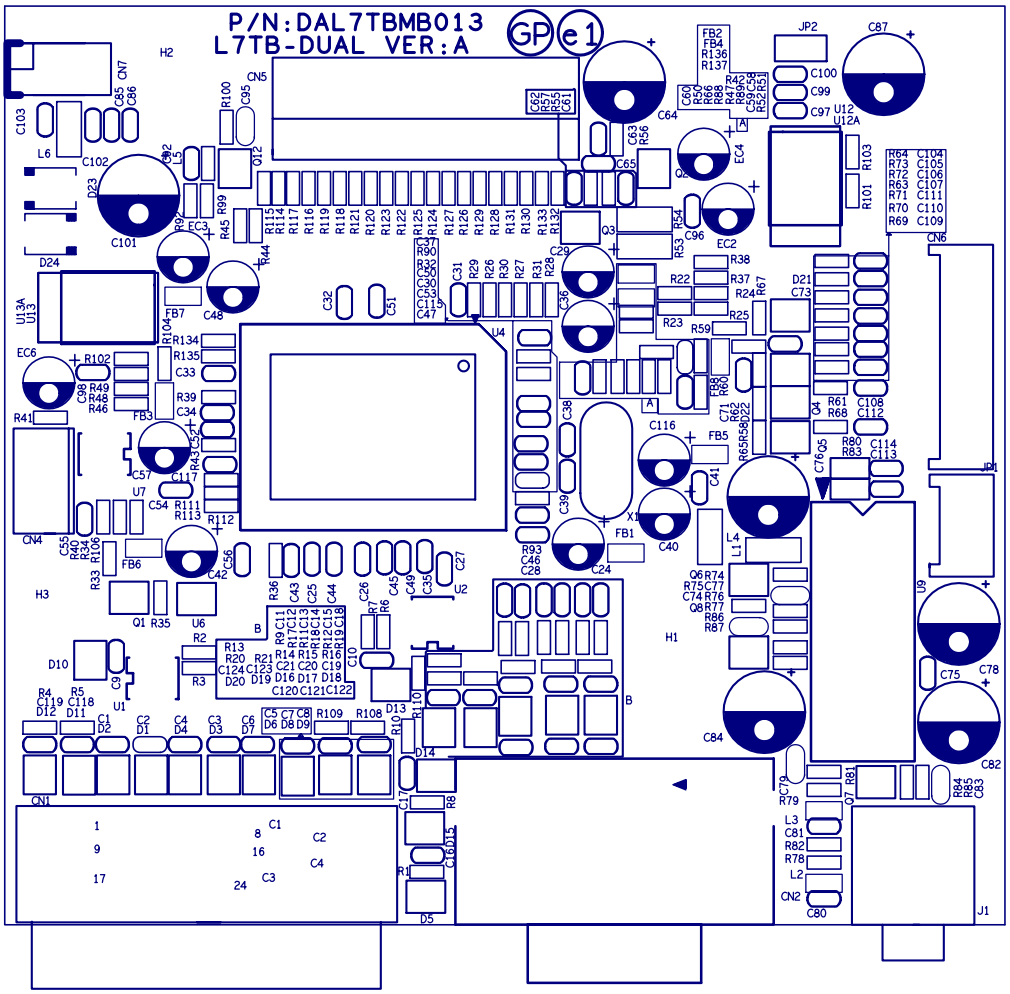
C : H- Back porch Q :.V- Back porch

D : H- Video width R : V- Video width

E : H- Front porch S :.V- Front porch

Monitor Block Diagram

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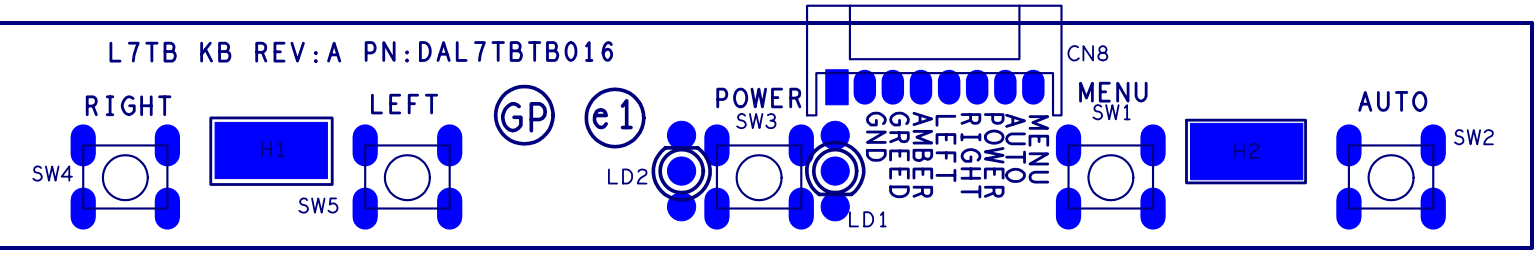
L7TB-DUAL VER:A
GP e1


L7TB KB REV:A PN:DAL7TBTB016
RIGHT
SW4
H1
SW5
LEFT
GP
e1
LD2
POWER
SW3
LD1
CN8
MENU
AUTO
POWER
RIGHT
LEFT
AMBER
GREED
GND
MENU
SW1
H2
AUTO
SW2

Chapter 2

OPERATING INSTRUCTIONS

Front Panel Definition

This Section defines the front panel User Interface for Led Indictor and Key function.

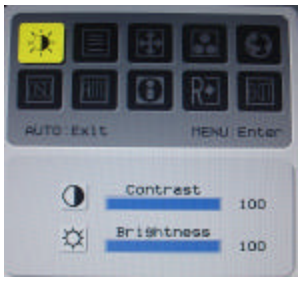
Key Definition:

There are five keys defined in this system and described bellows.

External Controls

1	⏻	POWER	Power on/off Blue: power on Orange: in sleep mode
2	MENU	OSD Function	Press to view OSD. Press again to exit a selection in OSD.
3	^	UP/ PLUS	If OSD is active, press to select or adjust OSD options. If OSD is inactive, press once, then press the buttons marked ^ or v to adjust the volume.
4	v	DOWN / MINUS	If OSD is active, press to select or adjust OSD options. If OSD is inactive, press once, then press the buttons marked ^ or v to adjust the volume.
5	AUTO	AUTO	If OSD is active, press to enter a selection in OSD. If OSD is inactive, press and the monitor will automatically optimize the position, focus and clock of your display.

OSD Menu



Picture

Brightness:

This adjusts the brightness of the picture on the screen.

Contrast:

This adjusts dark and light shades of color relative to each other to achieve a comfortable contrast.

Color temp. :

There are three ways of adjusting color:

Warm (Reddish white)

Cool (Bluish white)

User : You can adjust the colors red, green and blue to the intensity you desire.

Focus:

This removes any horizontal distortion and makes the picture clear and sharp.

Clock:

If there are any vertical stripes seen on the background of the screen this renders them less noticeable by minimizing their size. It also changes the size of the horizontal screen.

H-Position:

This adjusts the horizontal screen position.

V-Position:

This adjusts the vertical screen position.

Option

Auto Config. :

System choose signal “Analog or Digital”

Reset:

Recall to default settings.

Information:

This shows brief information on the screen.

Setting

Language:

Select the OSD menu language from

English, French, German, Italian, Spanish, Simplified Chinese, Traditional Chinese, Japanese and Russian.

OSD H. Position

OSD V. Position

OSD Time-out

This changes the position of the OSD window on the screen and staying time.

LED Definition

The system equips one dual color (blue/amber) led to indict system status and defined as bellows :

LED Color	System Status
Green	System in normal operation mode
Amber	System in power-saving mode
Dark	System in power-off mode

LOGO :

When the monitor is power on, the LOGO will be showed in the center, and disappear slowly.

HOW TO OPTIMIZE THE DOS-MODE

Plug and play

Plug & play DDC2B feature

This monitor is equipped with VESA DDC2B capabilities according to the VESA DDC STANDARD. It allows the monitor to inform the host system of its identity and, depending on the level of DDC used, communicate additional information about its display capabilities. The communication channel is defined in two levels, DDC2B.

The DDC2B is a bi-directional data channel based on the I^2C protocol. The host can request EDID information over the DDC2B channel.

THIS MONITOR WILL APPEAR TO BE NON-FUNCTIONAL IF THERE IS NO VIDEO INPUT SIGNAL. IN ORDER FOR THIS MONITOR TO OPERATE PROPERLY, THERE MUST BE A VIDEO INPUT SIGNAL.

This monitor meets the Green monitor standards as set by the Video Electronics Standards Association(VESA) and/or the United States Environmental Protection Agency (EPA) and The Swedish Confederation Employees (NUTEK). This feature is designed to conserve electrical energy by reducing power consumption when there is no video-input signal present. When there is no video input signal this monitor, following a time-out period, will automatically switch to an OFF mode. This reduces the monitor's internal power supply consumption. After the video input signal is restored, full power is restored and the display is automatically redrawn. The appearance is similar to a "Screen Saver" feature except the display is completely off. The display is restored by pressing a key on the keyboard, or clicking the mouse.

USING THE RIGHT POWER CORD

The accessory power cord for the Northern American region is the wallet plug with NEMA 5-15 style and is UL listed and CSA labeled. The voltage rating for the power cord shall be 125 volt AC.
Supplied with units intended for connection to power outlet of personal computer: Please use a cord set consisting of a minimum No. 18 AWG, type SJT or SVT three conductors flexible cord. One end terminates with a grounding type attachment plug, rated 10A, 250V,CEE-22 male configuration. The other end terminates with a molded-on type connector body, rated 10A, 250V, having standard CEE-22 female configuration.
Please note that power supply card needs to use VDE 0602, 0625, 0821 approval power cord in European counties.

Chapter 3

Machine assembly

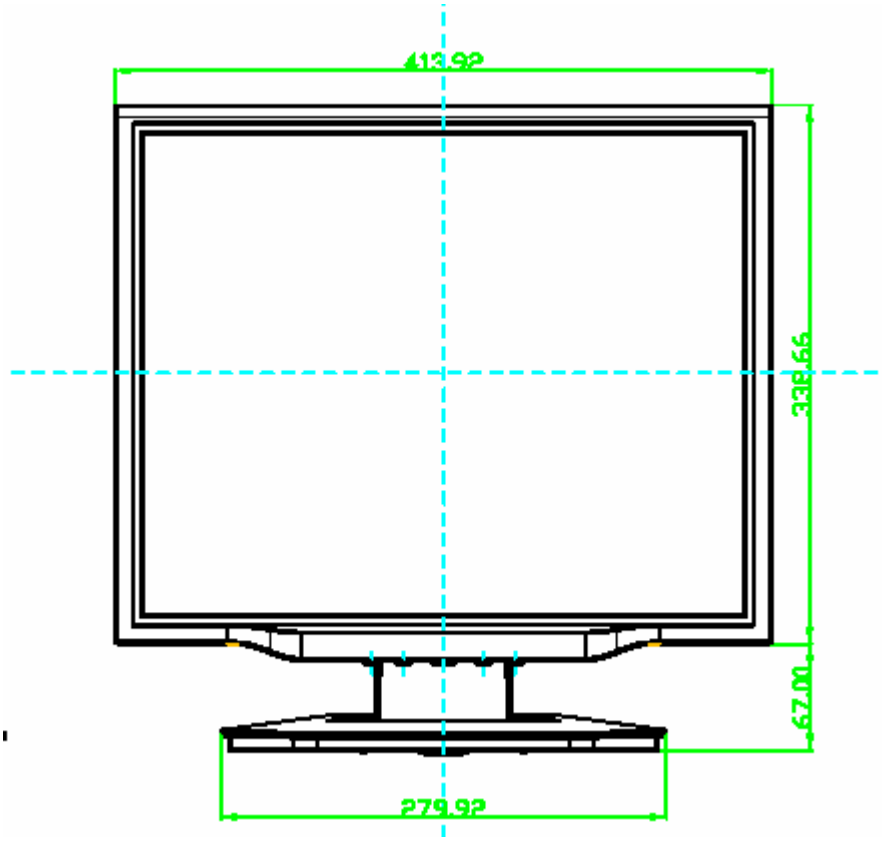
This chapter contains step-by-step procedures on how to assemble the monitor for maintenance and trouble shooting

NOTE : 1. The screws for the different components vary in size. During the disassembly process, group the screws with the corresponding to avoid mismatch when putting back the components.

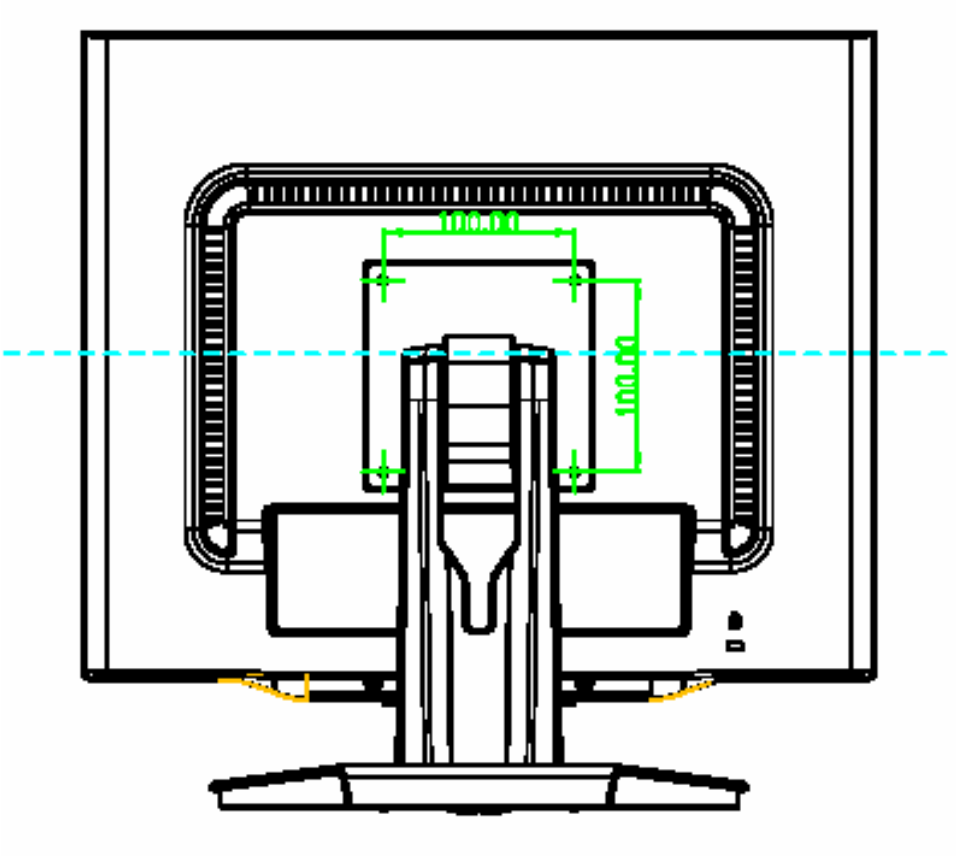
2. Note : The monitor surface is susceptible to scratching! Therefore, lay the monitor on a soft surface when mounting or removing the base.

3. Wear gloves.

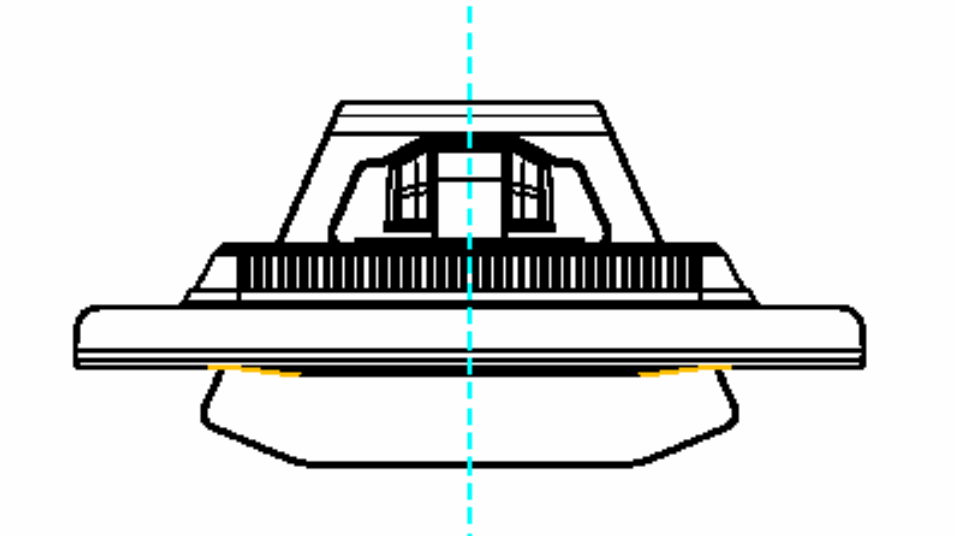
Front View : (unit : mm)



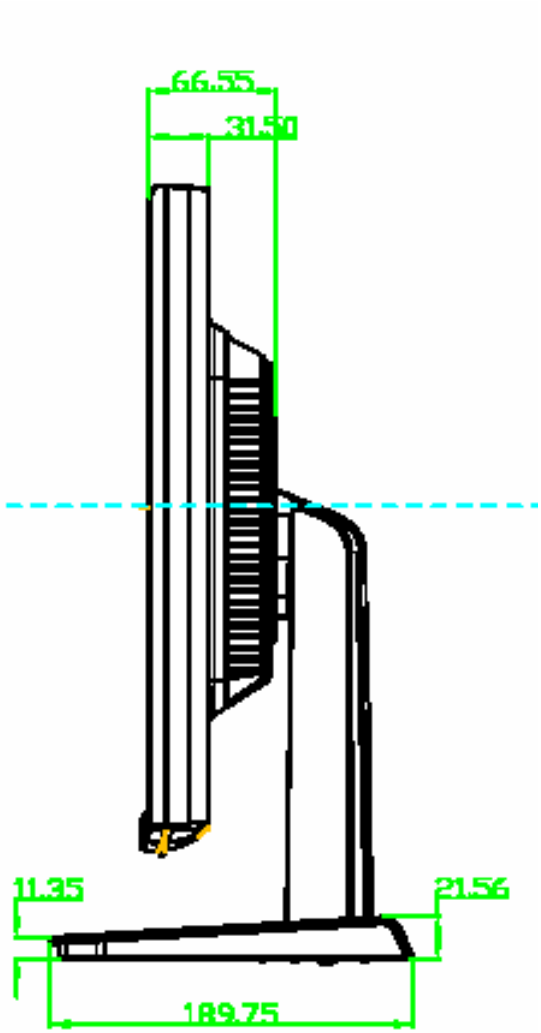
Real View :



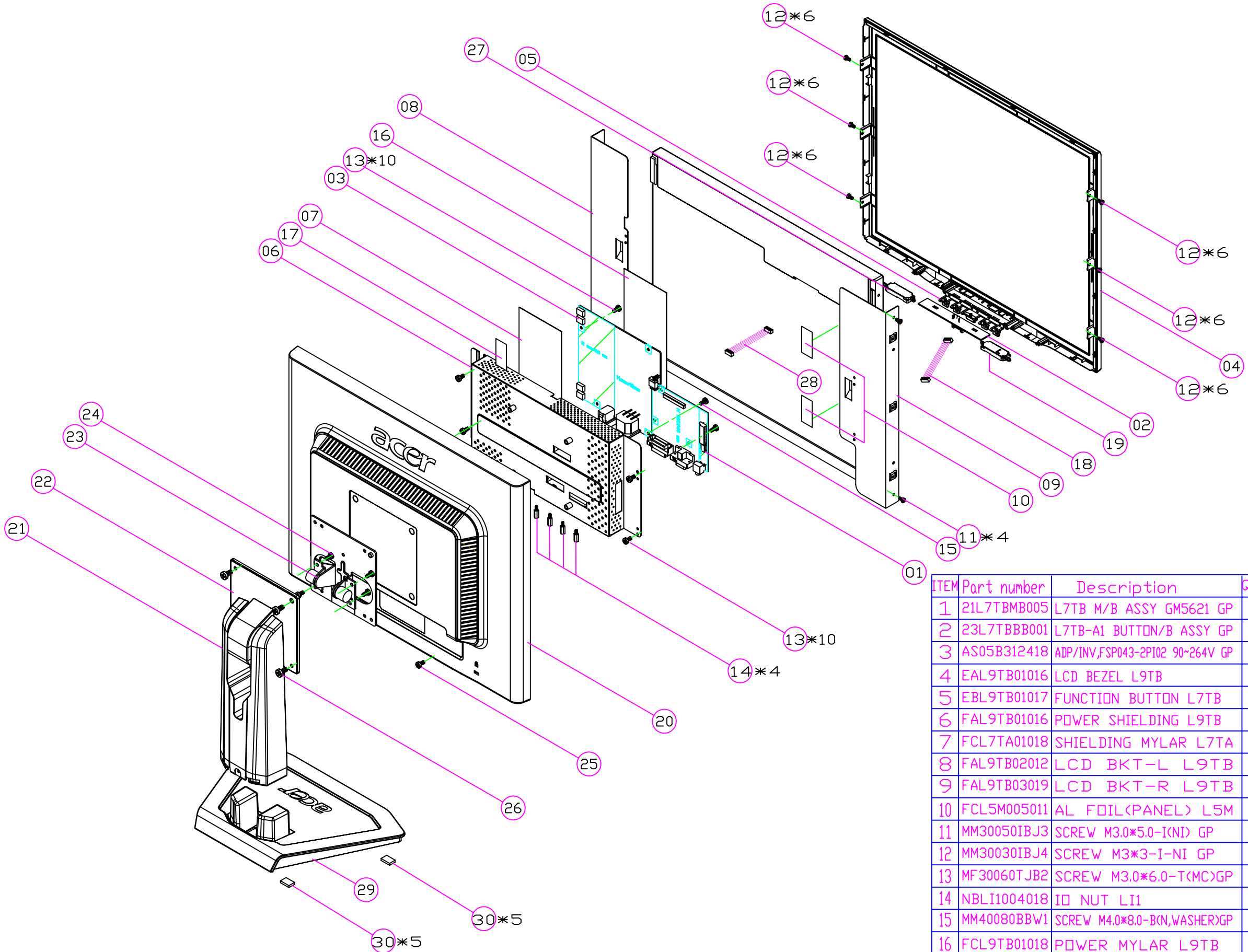
Top View :



Side View : (unit : mm)

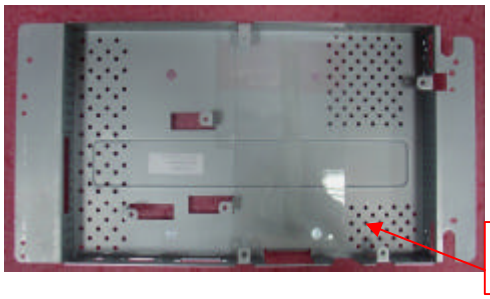
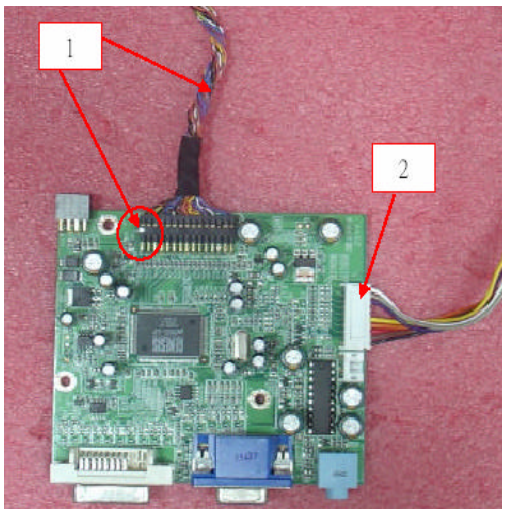
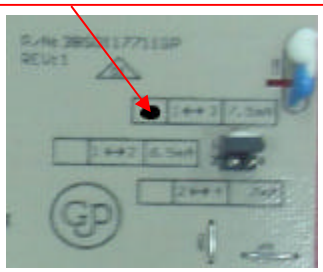


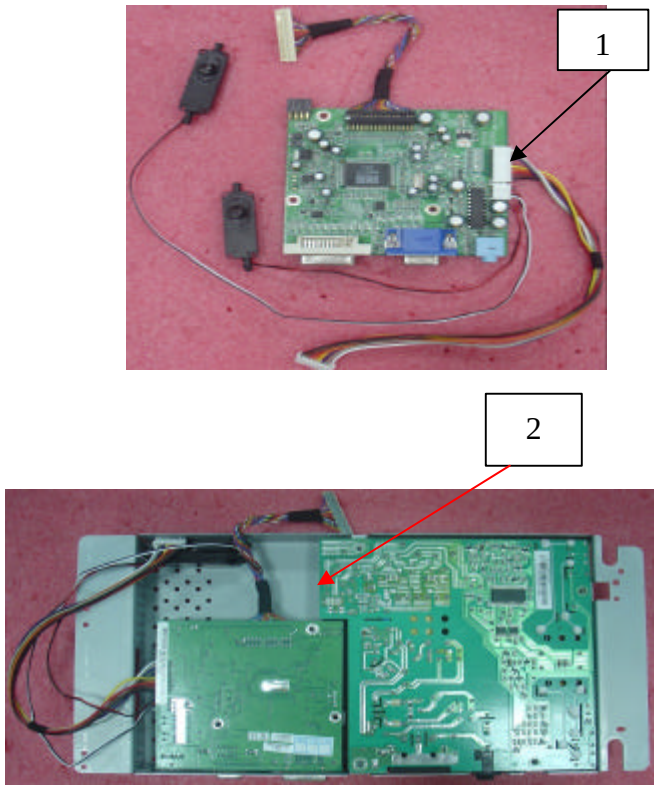
Exploded view

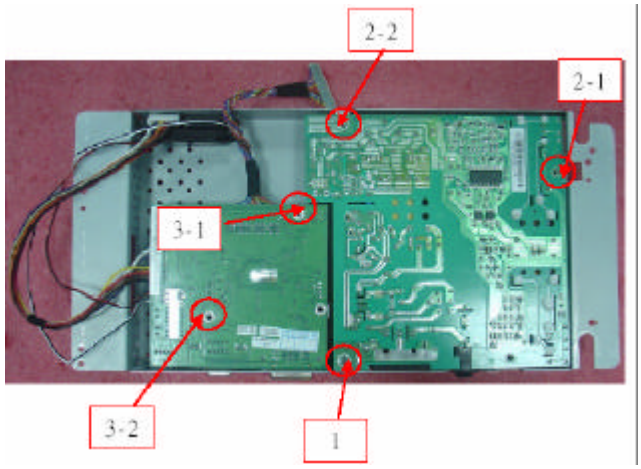


ITEM	Part number	Description	Q'ty	ITEM	Part number	Description	Q'ty
1	21L7TBMB005	L7TB M/B ASSY GM5621 GP	1	19	DNOTE240F01	SPEAKER ASSY L7TB	1
2	23L7TBBB001	L7TB-A1 BUTTON/B ASSY GP	1	20	EAL9TB02012	LCD COVER L9TB	1
3	AS05B312418	ADP/INV,FSP043-2PI02 90~264V GP	1	21	EAL9TB03019	STAND L9TB	1
4	EAL9TB01016	LCD BEZEL L9TB	1	22	EBL9TB02013	HINGE COVER L9TB	1
5	EBL9TB01017	FUNCTION BUTTON L7TB	1	23	EAL9TB04015	HINGE ASSY L9TB	1
6	FAL9TB01016	POWER SHIELDING L9TB	1	24	MF40080IBJ1	SCREW F4.0*8-I(NI)GP	4
7	FCL7TA01018	SHIELDING MYLAR L7TA	1	25	MF30080BJ27	SCREW F3.0*8,B(BNI)GP	2
8	FAL9TB02012	LCD BKT-L L9TB	1	26	MM40100B244	SCREW M4.0*10-B BLACK(NYLOK)	2
9	FAL9TB03019	LCD BKT-R L9TB	1	27	AAM190E4005	LCD(TFT)19"LTM190E4-L03	4
10	FCL5M005011	AL FOIL(PANEL) L5M	2	28	DDL9TBLC004	CABLE MB-LCD(100MM,30P,BB100)	1
11	MM30050IBJ3	SCREW M3.0*5.0-I(NI) GP	4	29	EAL9TB04015	BASE L9TB	1
12	MM30030IBJ4	SCREW M3*3-I-NI GP	6	30	GAL7TA01016	RUBBER FOOT L7TA	5
13	MF30060TJB2	SCREW M3.0*6.0-T(MC)GP	10				
14	NBLI1004018	IO NUT LI1	4				
15	MM40080BBW1	SCREW M4.0*8.0-B(N,WASHER)GP	1				
16	FCL9TB01018	POWER MYLAR L9TB	2				
17	FCM7T004014	AL FOIL M7T	1				
18	DDL7TBBU000	CABLE MB-BUTTON(10P/8P,230MM)	1				

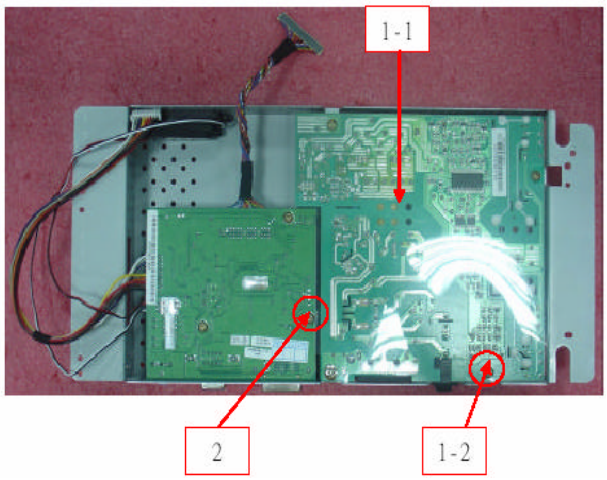
Assembly process

Picture	Description
	1. [GET PCB SHIELD AND PUT IT IN THE MIDDLE OF CONVEYER]
	1. [GET M/B AND LCD CABLE,THEN INSERT LCD CABLE IN M/B CONNECTOR] 2. [GET BUTTON CABLE,THEN INSERT IT INTO M/B CONNECTOR]
 Jumper value set as 7.5mA 	1. GET POWER/B AND INSERT JUMPER IN THE APPOINTED PLACE OF JP10 AT 2. GET AGGLUTINANT TO CONNECT THE JUMPER AND POWER/B 3. MARK DOT IN THE PANE MARK OF POWER/B AS PICTURE SHOWS

<table>
<tr>
<td> 
</td>
<td>1. INSERT SPEAKER CABLE IN M/B CONNECTOR

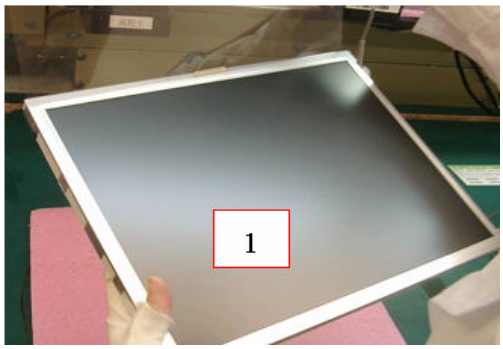
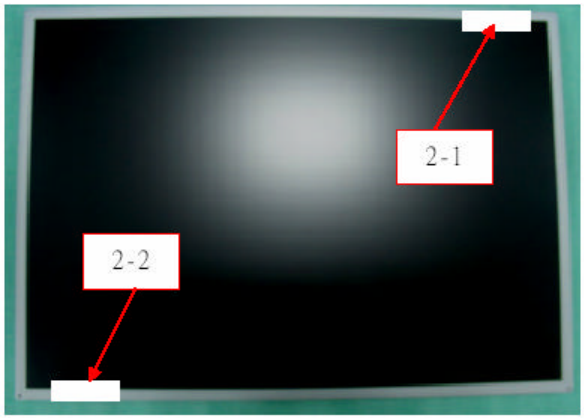
2. GET M/B AND ASSEMBLE IT WITH POWER/B,THEN ASSEMBLE THEM IN PCB SHIELD</td>
</tr>
<tr>
<td> 
</td>
<td>1. FASTEN 1*PCS SCREW(M 4*8-B) IN P/B

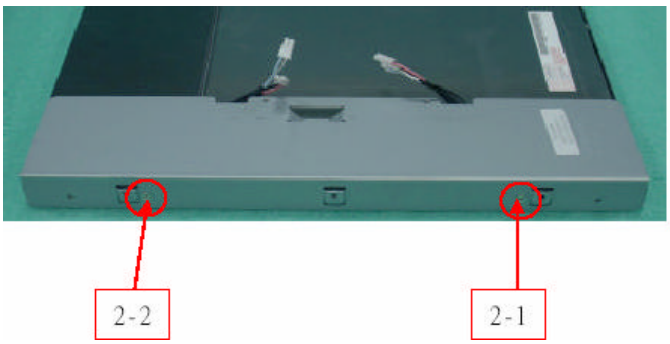
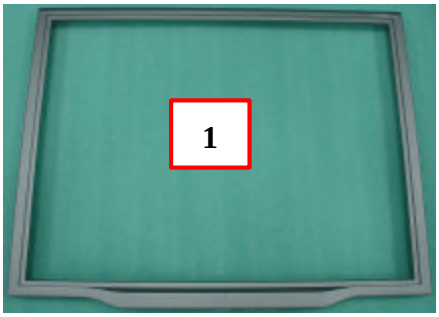
2. FASTEN 2*PCS SCREW(M 3*6-T) IN P/B

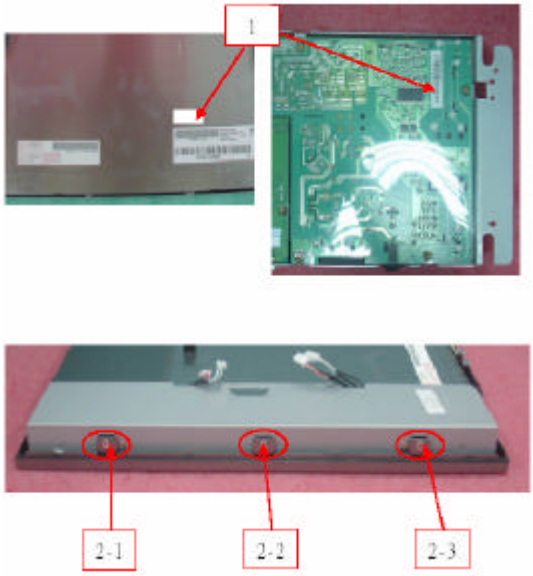
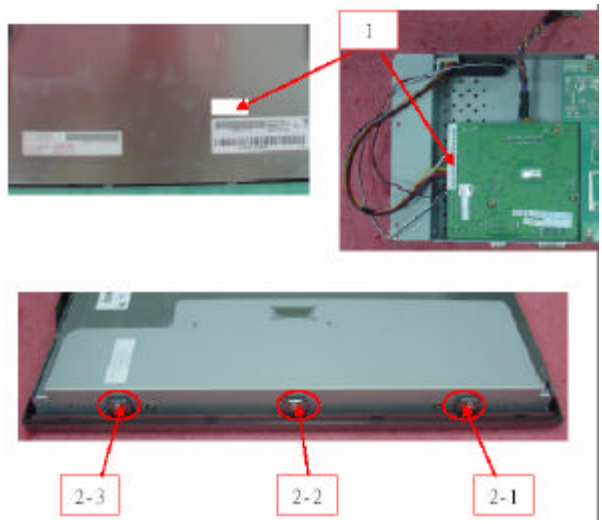
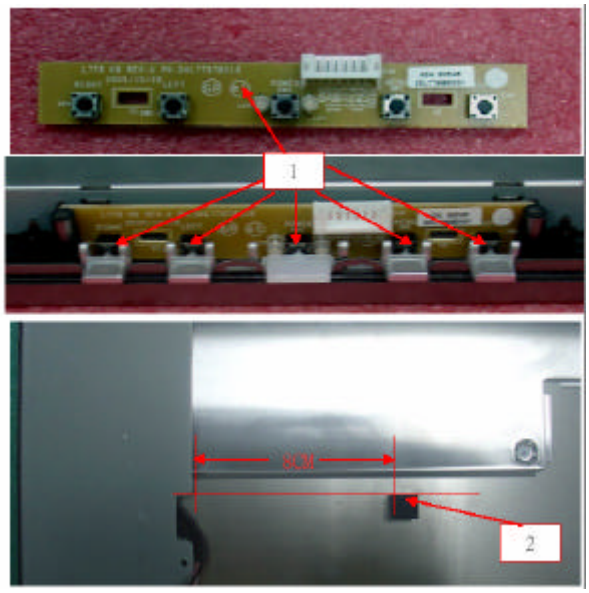
3. FASTEN 2*PCS SCREW(M 3*6-T) IN M/B</td>
</tr>
<tr>
<td> 
</td>
<td>1. FETCH POWER/B MYLAR PUT IT ON SHIELD AND FASTEN 1*PCS SCREW(M 3*6-T

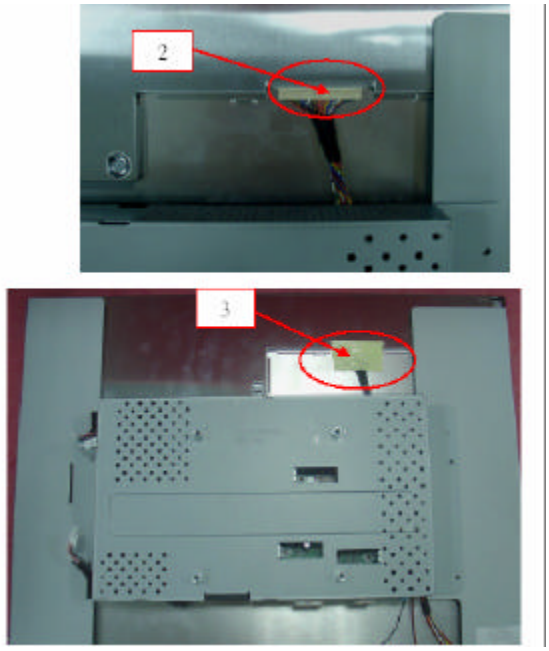
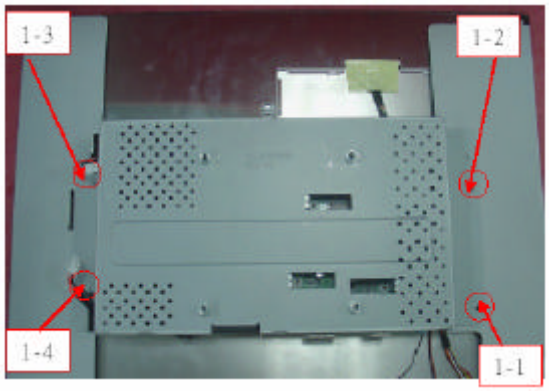
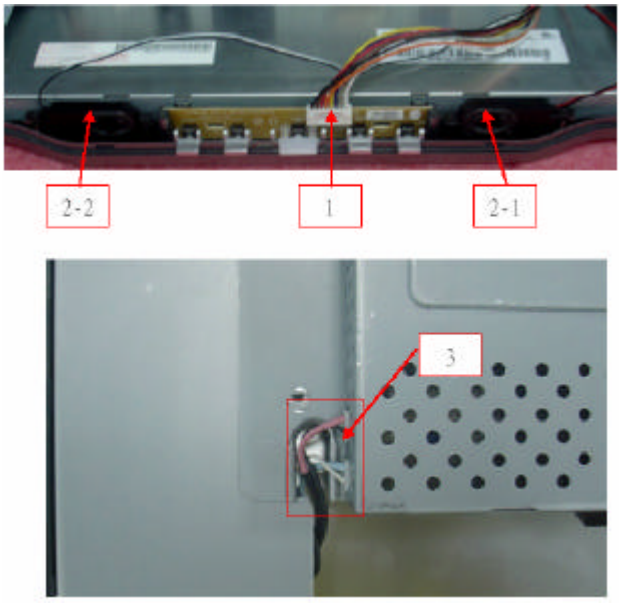
2. FASTEN 1*PCS SCREW(M 3*6-T) IN M/B

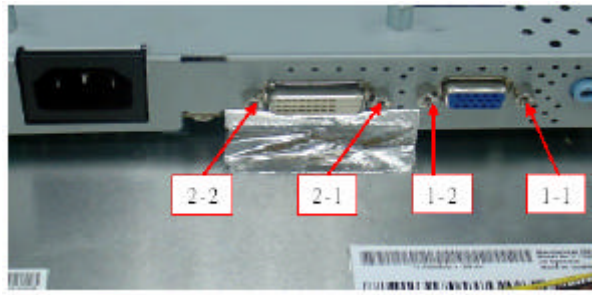
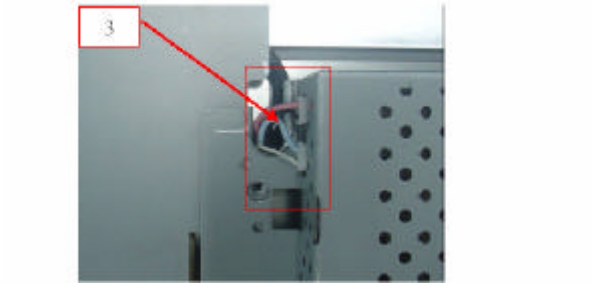
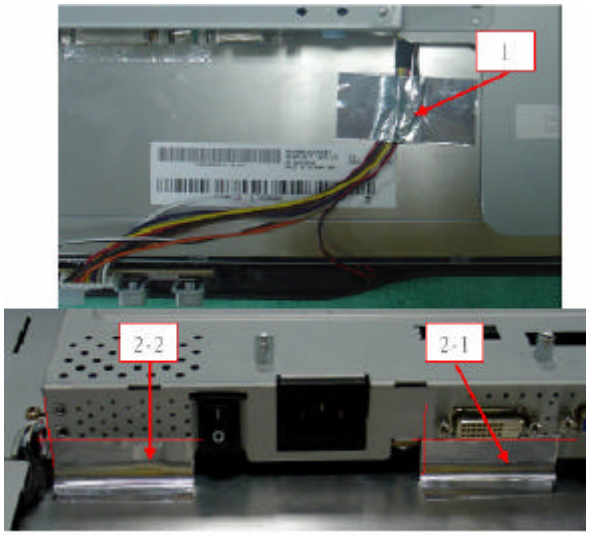
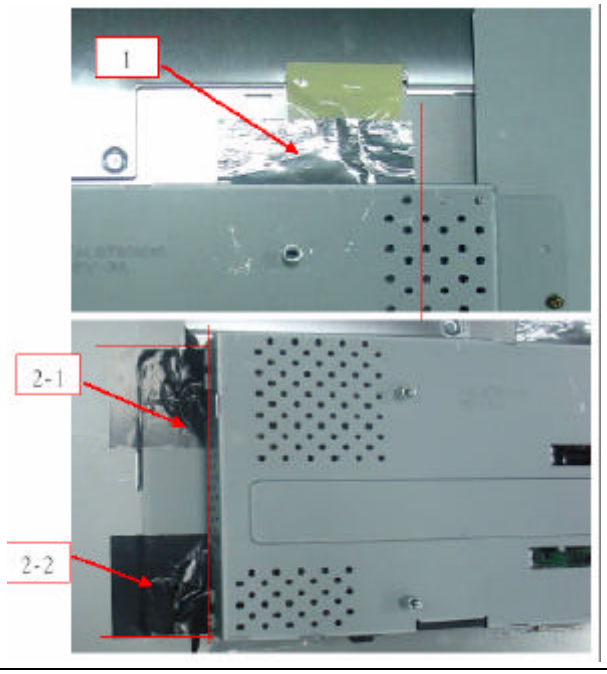
3. GET THE SHIELD AT FRONTAGE OF THE CONVEYER</td>
</tr>
</table>

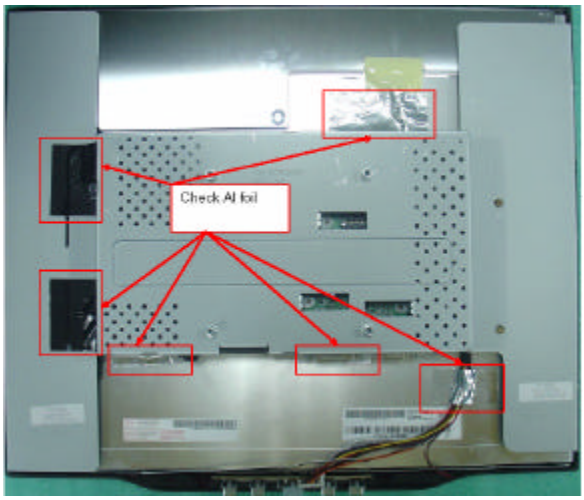
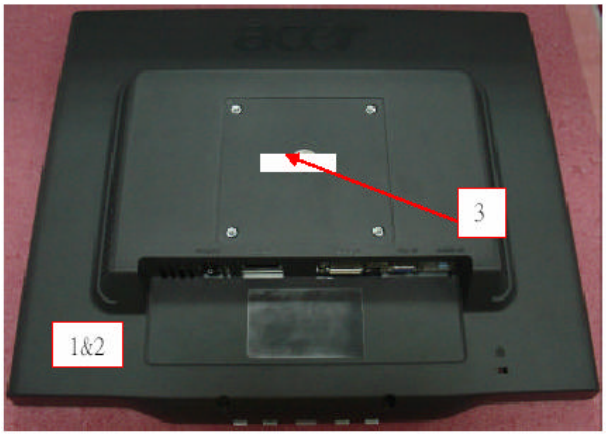
	1. GET THE SHIELD AT FRONTAGE OF THE CONVEYER 2. GET PANEL AND PUT IT ON THE CONVEYER, THEN TEAR OFF THE INCOMING TAPE
  	1. UNCOVER PANEL PROTECTIVE FILM AND INSPECT IF PANEL IS DIRTY OR SCRATCHED 2. PASTE TYPE ON THE PROTECTIVE FILM TO FASTEN IT 3. TURN LCD,TEAR OFF INCOMING TYPE

 	1. FETCH TRAVEL CARD, TEAR OFF 1*PCS S/N FROM TRAVEL CARD AND PASTE IT ON THE PANEL BACK,THEN SCAN S/N AND PANEL CODE 2. GET LEFT BKT AND LOCK 2*PCS SCREW(M3*5-I) TO FASTEN IT AND PANEL
	1. GET RIGHT BKT AND LOCK 2*PCS SCREW(M3*5-I) TO FASTEN IT AND PANEL 2. TURN LCD AND TEAR OFF PROTECTIVE FILM
 	1. GET BEZEL AND CHECK ITS APPEARANCE 2. ASSEMBLE BEZEL ON PANEL,THEN PASTE TYPE TO FASTEN PROTECTIVE FILM ON THE BEZEL 3. TURN LCD

	1. SCAN S/N AND POWER CODE 2. FASTEN BKT AND BEZEL IN THE RIGHT SIDE WITH SCREW 3*PCS
	1. SCAN S/N AND M/B CODE 2. FASTEN BKT AND BEZEL IN THE LEFT SIDE WITH SCREW 3*PCS 3. TURN LCD
	1. FETCH BUTTON/B AND INSERT IT INTO BEZEL 2. STICK 1*PCS RUBBER AT THE APPOINTED PLACE

	1. GET SHIELD ON THE BKT R/L 2. INSERT LCD CABLE INTO PANEL CONNECTOR 3. STICK 1*PCS YELLOW TAPE TO FASTEN LCD CABLE 4. TRIM WIRES AND ASSEMBLE SHIELDING IN RIGHT POSITION
	1. LOCK 4*PCS SCREW(M3*6-T) TO FASTEN PCB SHIELD
	1. INSERT BUTTON CABLE INTO BUTTON 2. PUT THE SPEAKER AT THE APPOINTED PLACE 3. INSERT NETHER CCFT CABLE IN INVERTER CABLE

 	1. FASTEN 2*PCS IO-NUT IN THE VGA JOINT 2. FASTEN 2*PCS IO-NUT IN THE M/B JOINT 3. INSERT CCFT CABLE IN POWER/B
	1. STICK AL FOIL AT THE APPOINTED PLACE TO FASTEN THE CABLE 2. STICK 2*PCS AL FOIL AT THE APPOINTED PLACE
	1. STICK 1*PCS AL FOIL AT THE APPOINTED PLACE 2. STICK 2*PCS AL FOIL AT CCFT

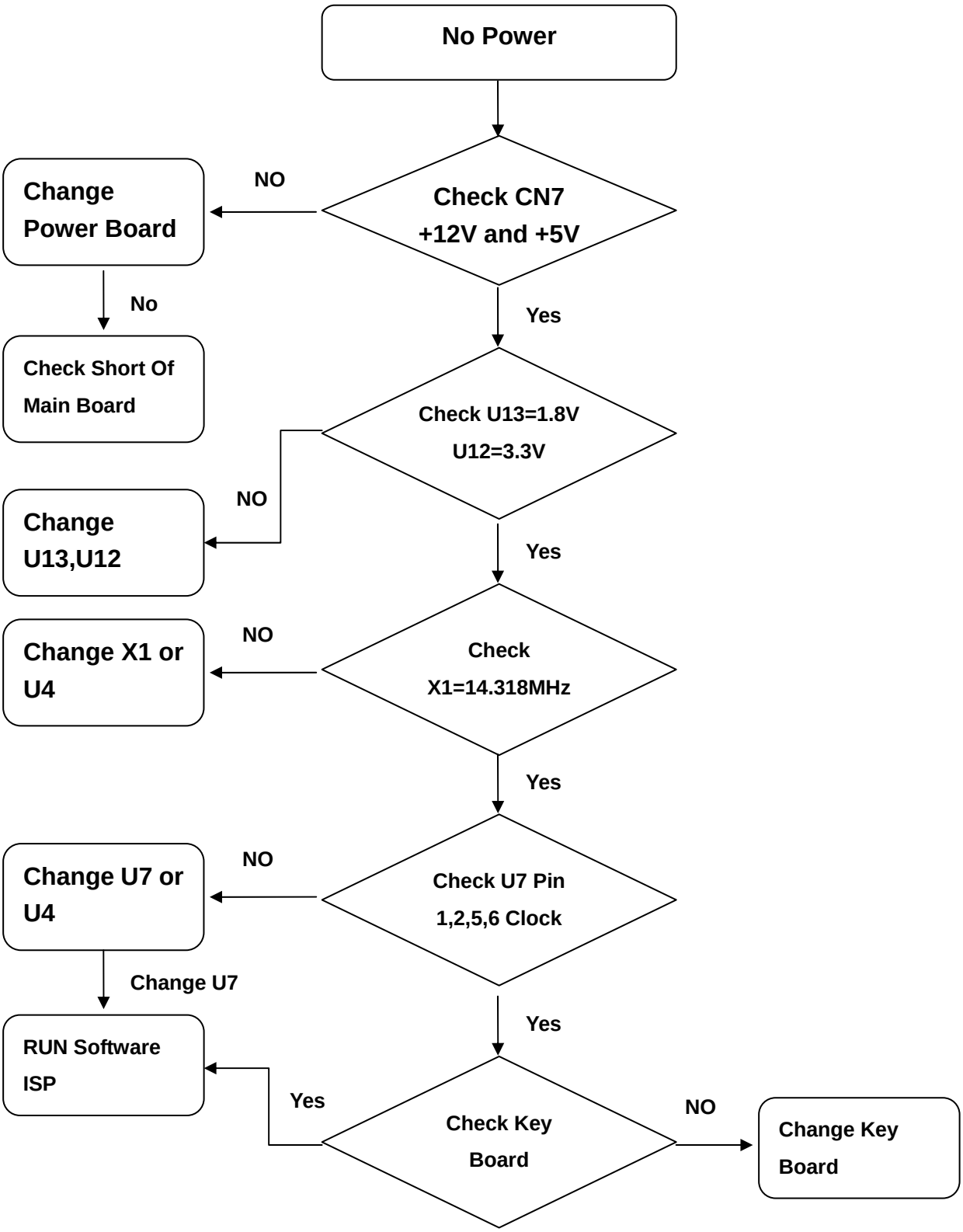
	1. CHECK THE Q'TY AND LOCATION OF AL FOIL
	1. GET LCD COVER AND INSPECT ITS APPEARANCE 2. ASSEMBLE LCD COVER TO BEZEL 3. STICK 1*PCS TAPE AT THE APPOINTED PLACE
	1. FETCH TRAVEL CARD, TEAR OFF 1*PCS APPOINTED S/N FROM TRAVEL CARD AND PASTE IT ON THE COVER 2. LOCK 2*PCS SCREW (F3*8-B) TO FASTEN BEZEL AND LCD COVER 3. GET STAND NECK AND INSPECT IF IT IS DIRTY AND SCRATCHED,THEN PUT IT IN THE CONVEYER

	1. AT FIRST CHECK IF 2*PCS SCREW IN THE COVER IS LOST 2. LOCK 4*PCS SCREW (M4*10-B) TO FASTEN STAND NECK
 	1. INSERT VGA CABLE INTO VGA CONNECTOR AND INSERT POWER CORD INTO POWER CONNECTOR 2. GET BASE FIXTRUE AND ASSEMBLE IT TO STAND NECK.
 	1. INSERT DVI CABLE INTO DVI CONNECTOR AND INSERT POWER CORD INTO POWER CONNECTOR 2. STAND UP THE MONITOR AND STICK TRAVALCARD AT LEFT DOWNSIDE OF MONITOR

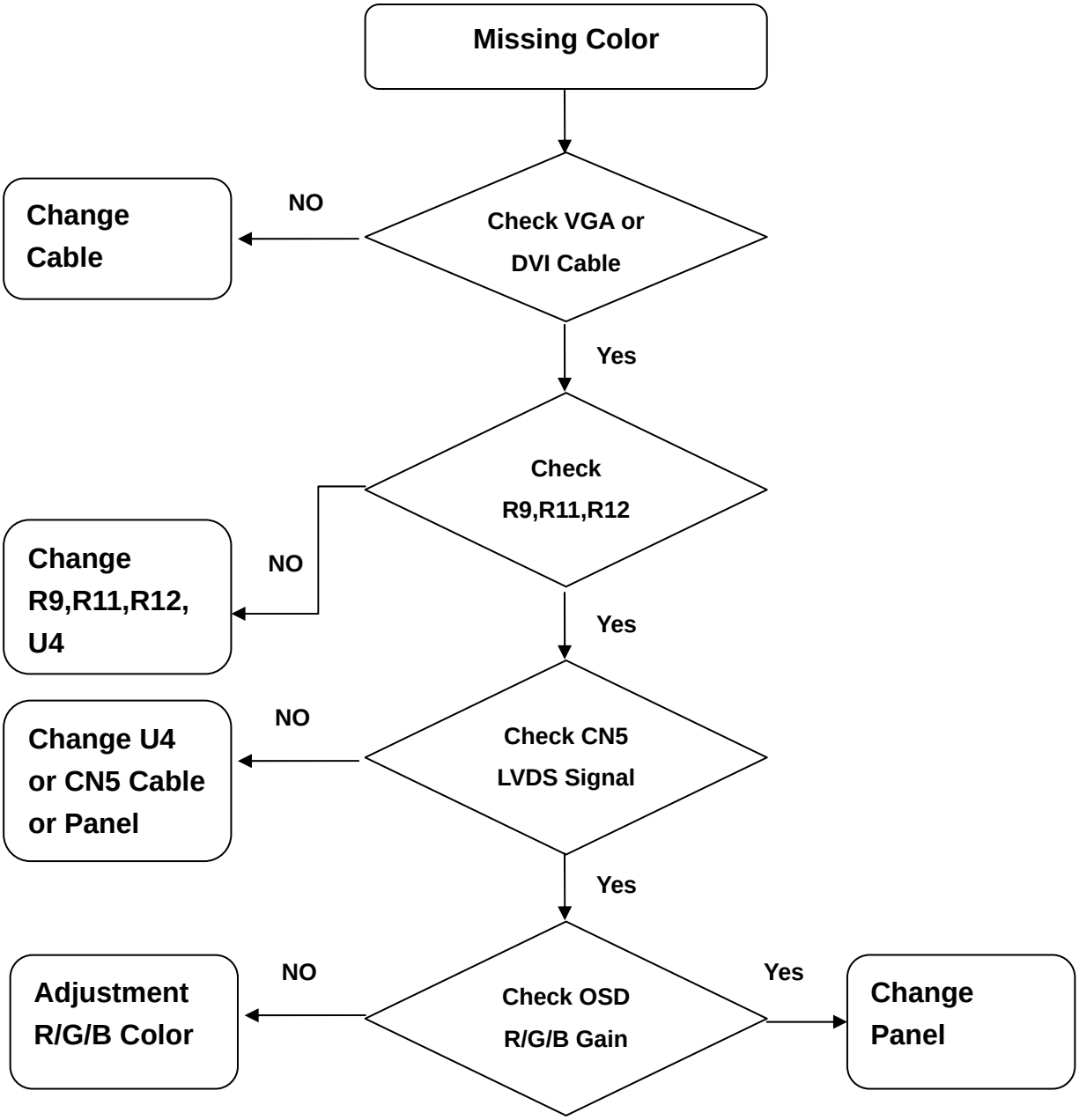
Chapter 4

Trouble Shooting

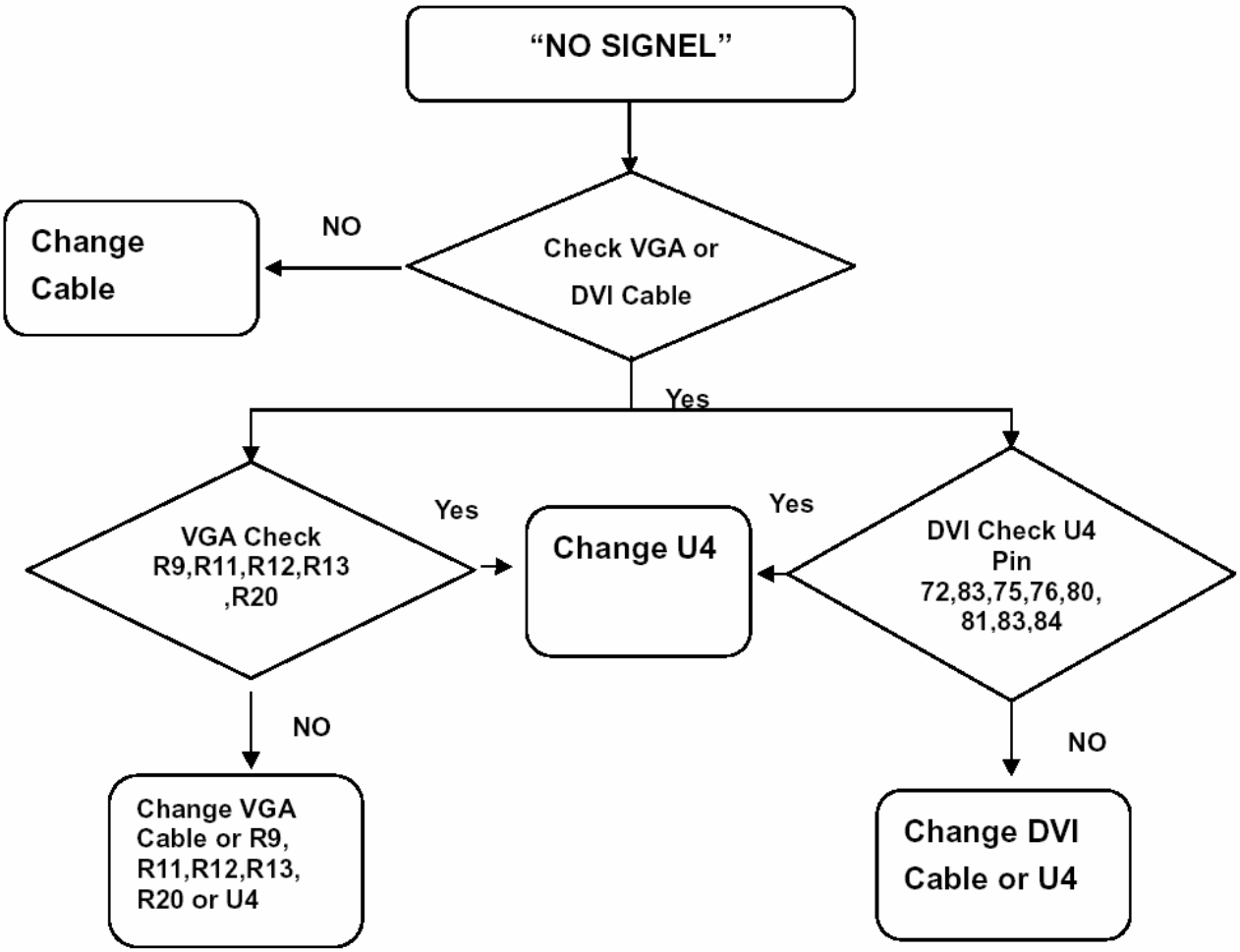
1. No Power



2. Missing Color



3. Always show “NO SIGNEL”



Chapter 5

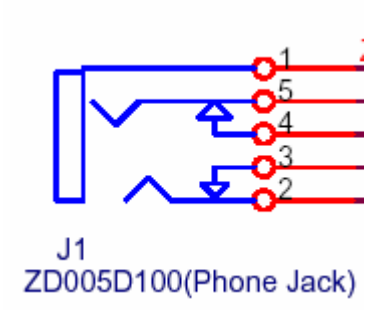
Connector Information

Phonejack stereo

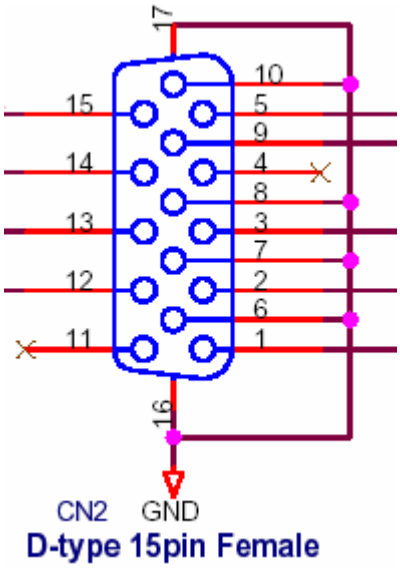
PIN1. AC power cord : CEE22 typed connector

PIN2. Audio cable

PIN3. Audio : Line-in receptacle

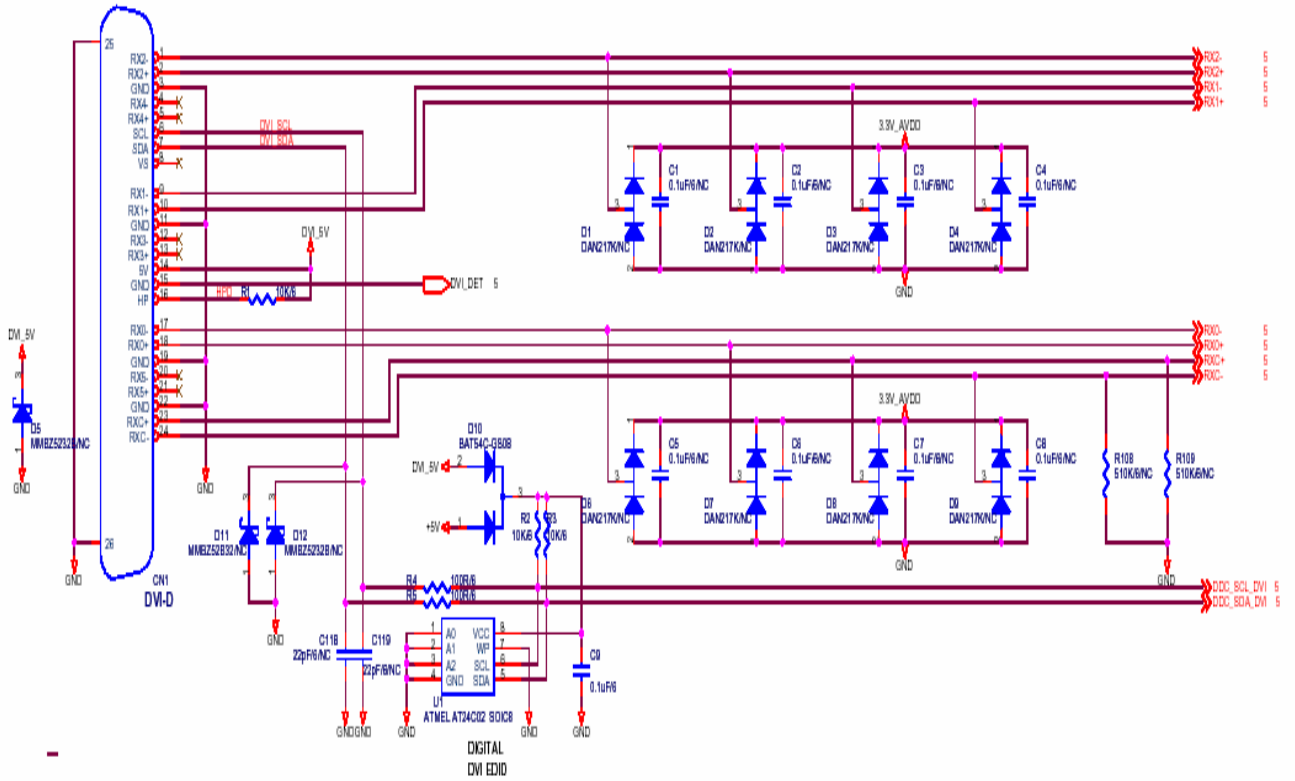


The PIN assignment of the 15 pin mini D-SUB connector / cable is as follows:



PI	MNEM	SIGNAL
1	RV	Red Video
2	GV	Green Video
3	BV	Blue Video
4	NC	None
5	GND	Ground(DDC return)
6	RG	Red GND
7	GG	Green GND
8	BG	Blue GND
9	+5V	+ 5V (for DDC)
10	SG	Sync GND
11	NC	None
12	SDA	DDC Data
13	HS	Horizontal Sync
14	VS	Vertical Sync
15	SCL	DDC Clock

The PIN assignment of the 24 pin DVI D connector / cable is as follows:



PIN	Signal	PIN	Signal
1	TMDS data2-	13	NC
2	TMDS data2+	14	+5V
3	TMDS data2 shield	15	Ground (return for +5 V and H/V sync)
4	NC	16	Hot plug detect
5	NC	17	TMDS data0-
6	DDC clock	18	TMDS data0+
7	DDC data	19	TMDS data0 shield
8	Not connected	20	NC
9	TMDS data1-	21	NC
10	TMDS data1+	22	TMDS clock shield
11	TMDS data1 shield	23	TMDS clock+
12	NC	24	TMDS clock-

Chapter 6

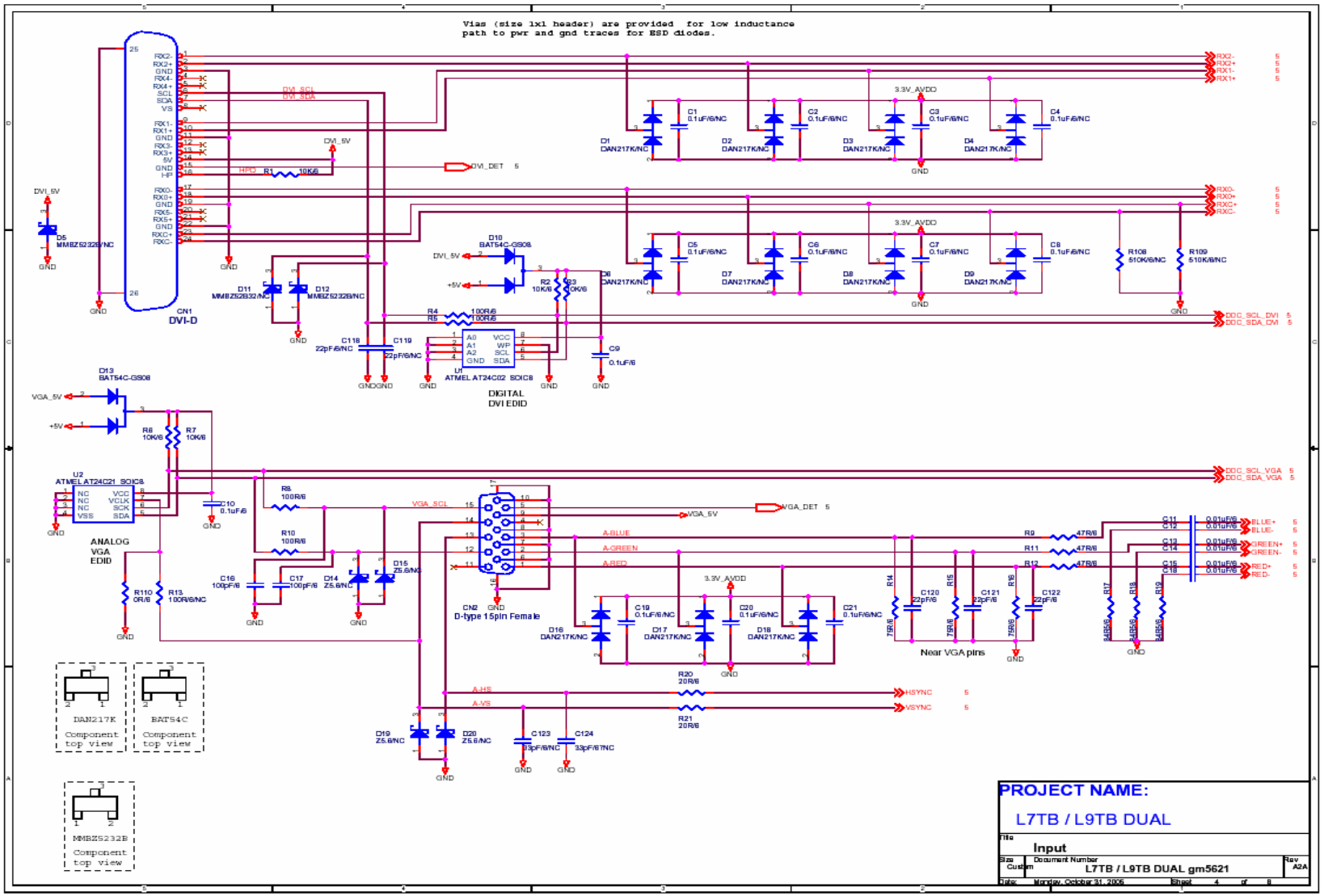
FRU (Field Replaceable Unit) list

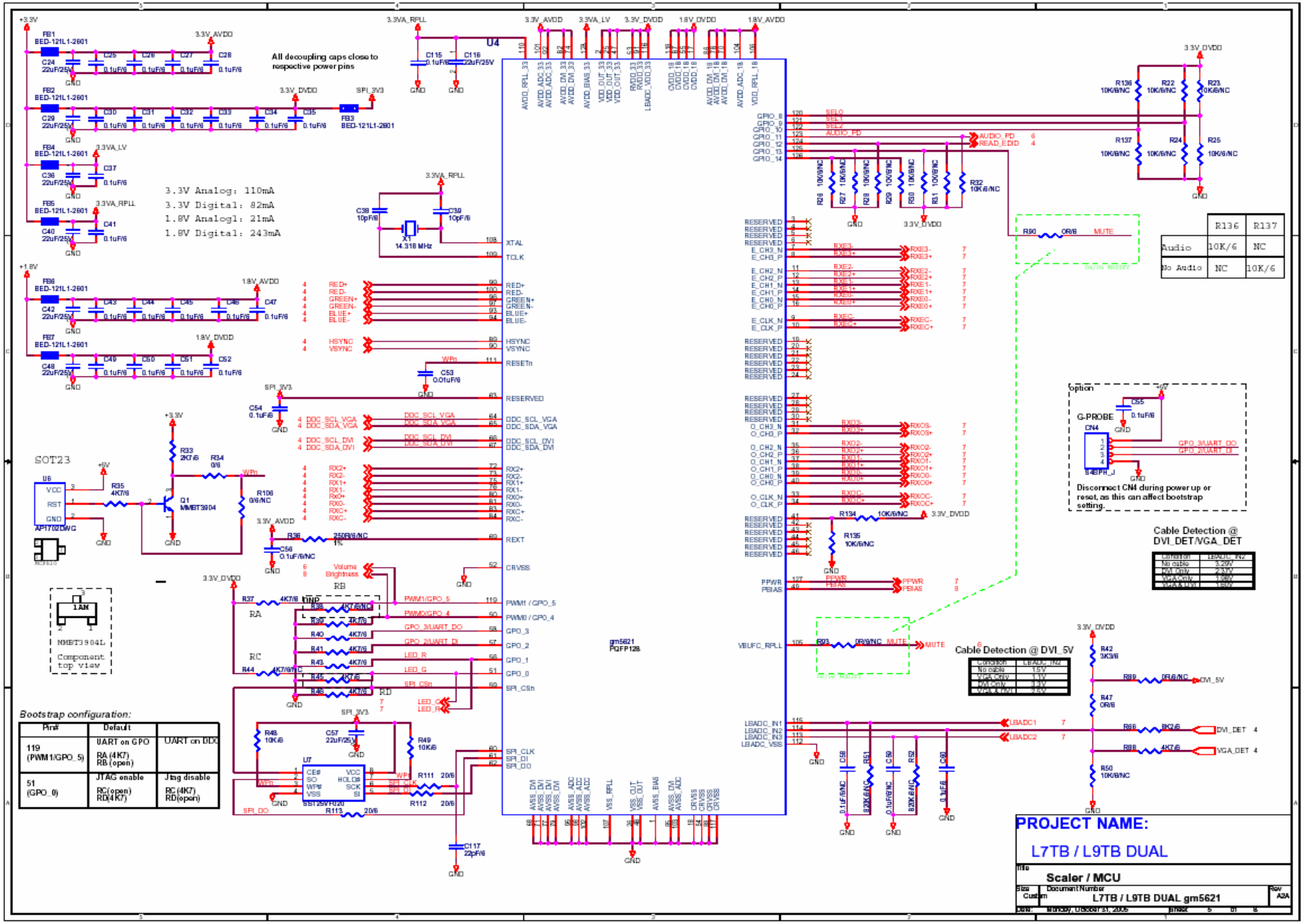
This chapter gives you the FRU (Field Replaceable Unit) listing in global configurations of AL1511. Refer to this chapter whenever ordering for parts to repair or for RMA (Return Merchandise Authorization).

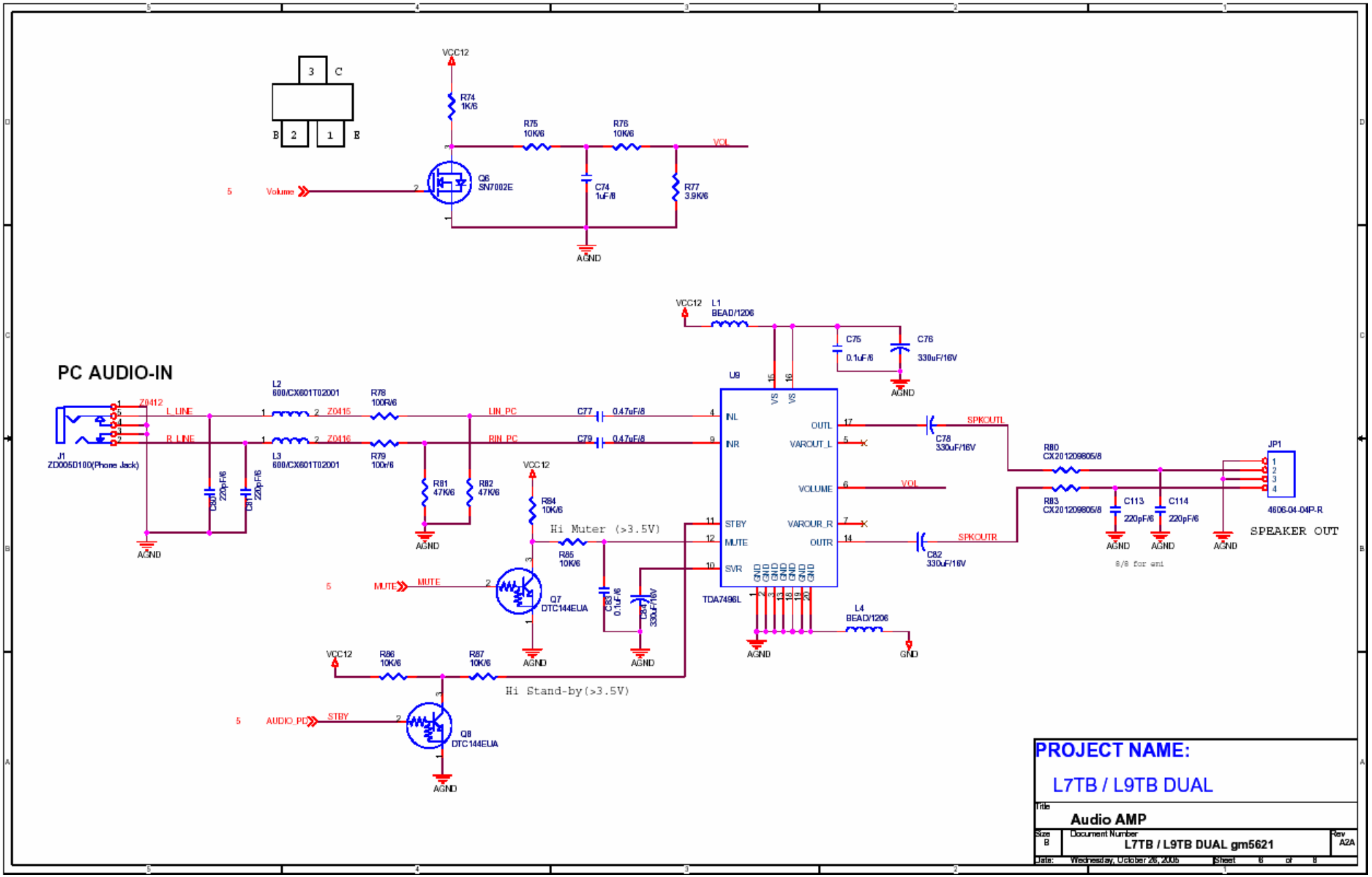
NOTE : Please note WHEN ORDERING FRU PARTS, that you should check the most up-to-date information available on your regional web or channel(http://aicsl.acer.com.tw/spl/). For whatever reasons a part number change is made, it will not be noted in the printed Service Guide. For ACER-AUTHORIZED CERVICE PROVIDERS, your Acer office may have a DIFFERENT part number code to those given in the FRU list of this printed Service Guide. You MUST use the local FRU list provided by your regional Acer office to order FRU parts repair and service of customer machines.

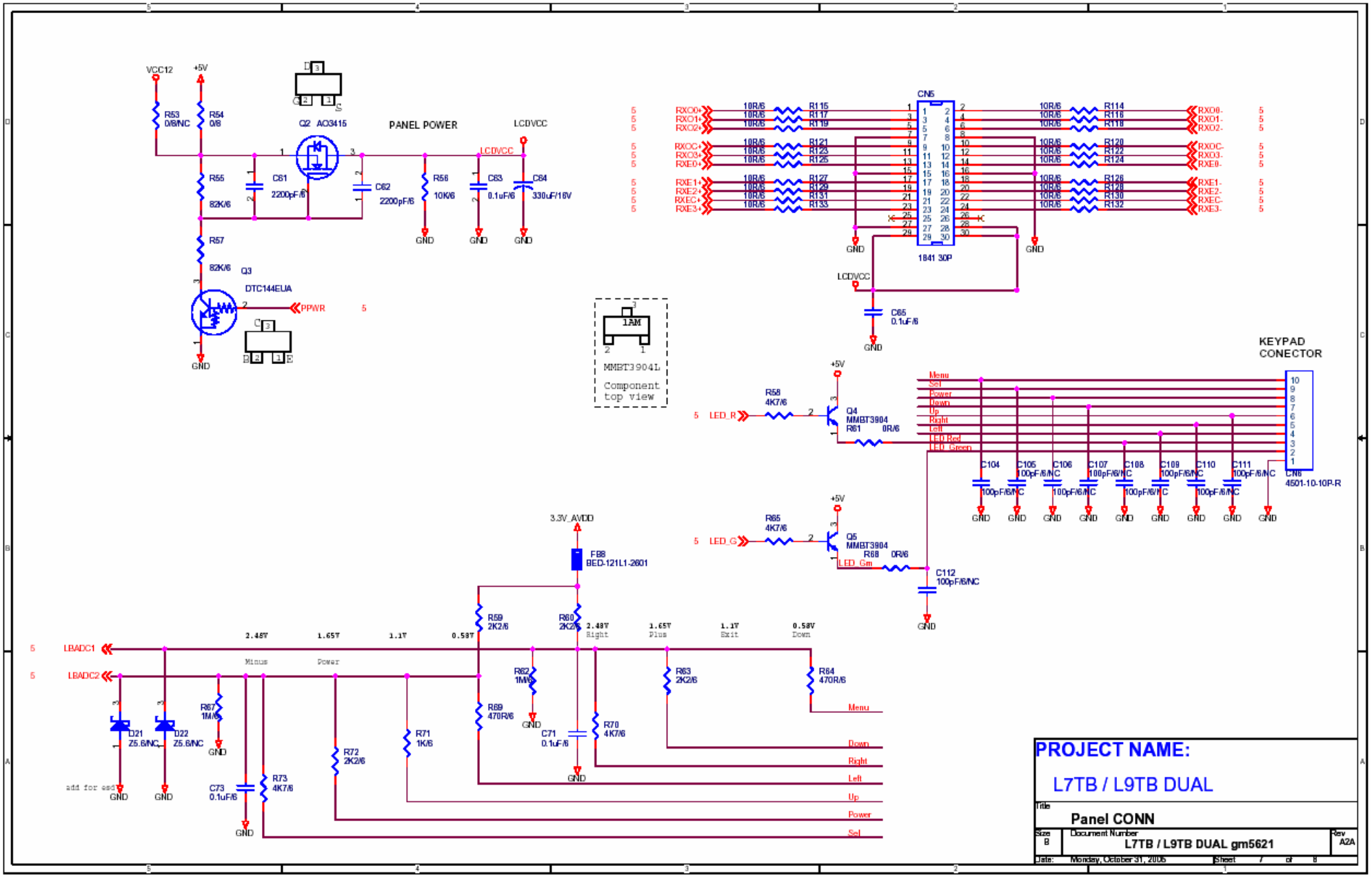
NOTE: To scrap or to return the defective parts, you should follow the local government ordinance or regulations on how best to dispose it, or follow the rules set by your regional Acer office on how to return it.

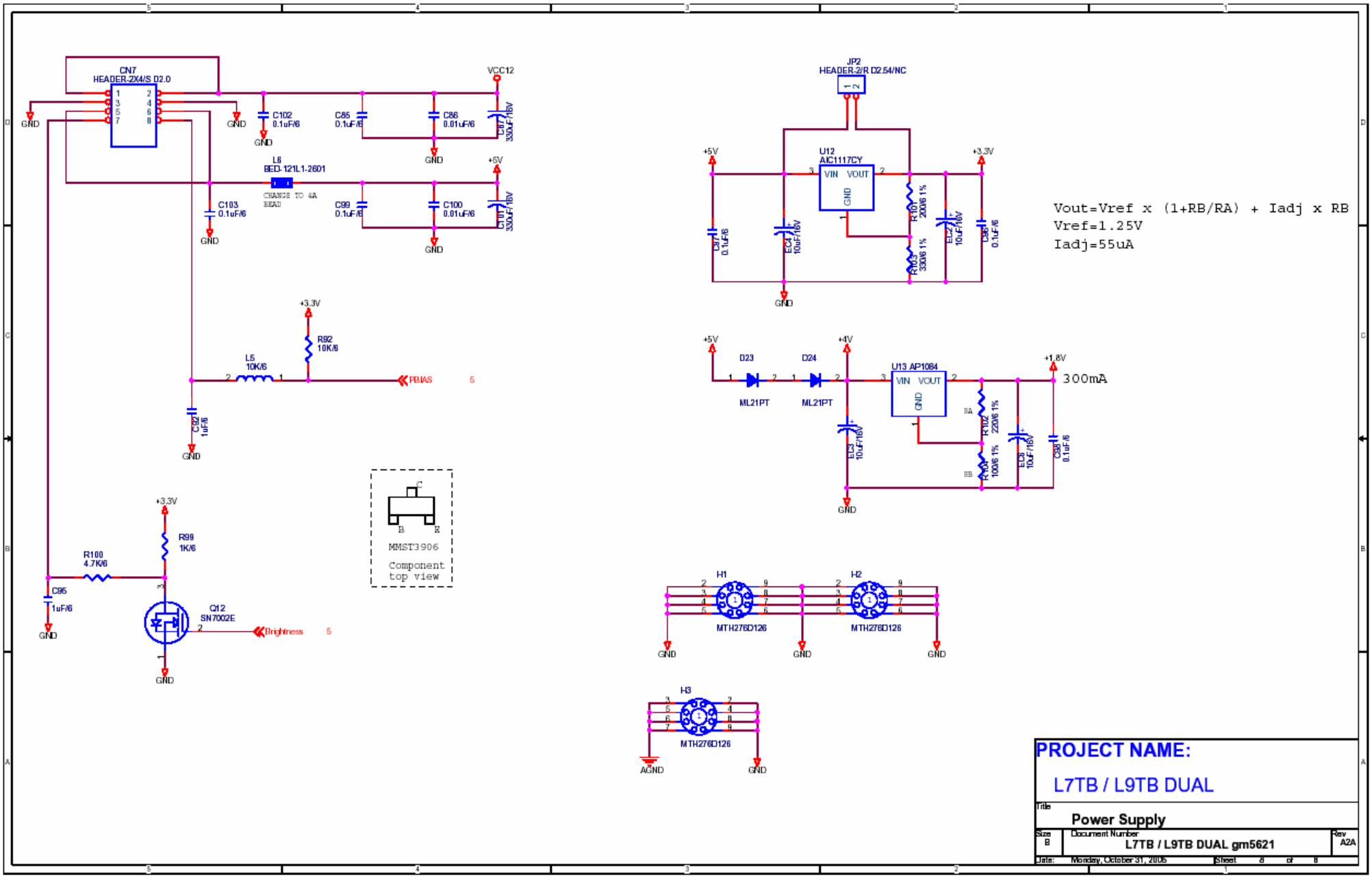
SCHEMATIC DIAGRAM **Main Board Circuit**

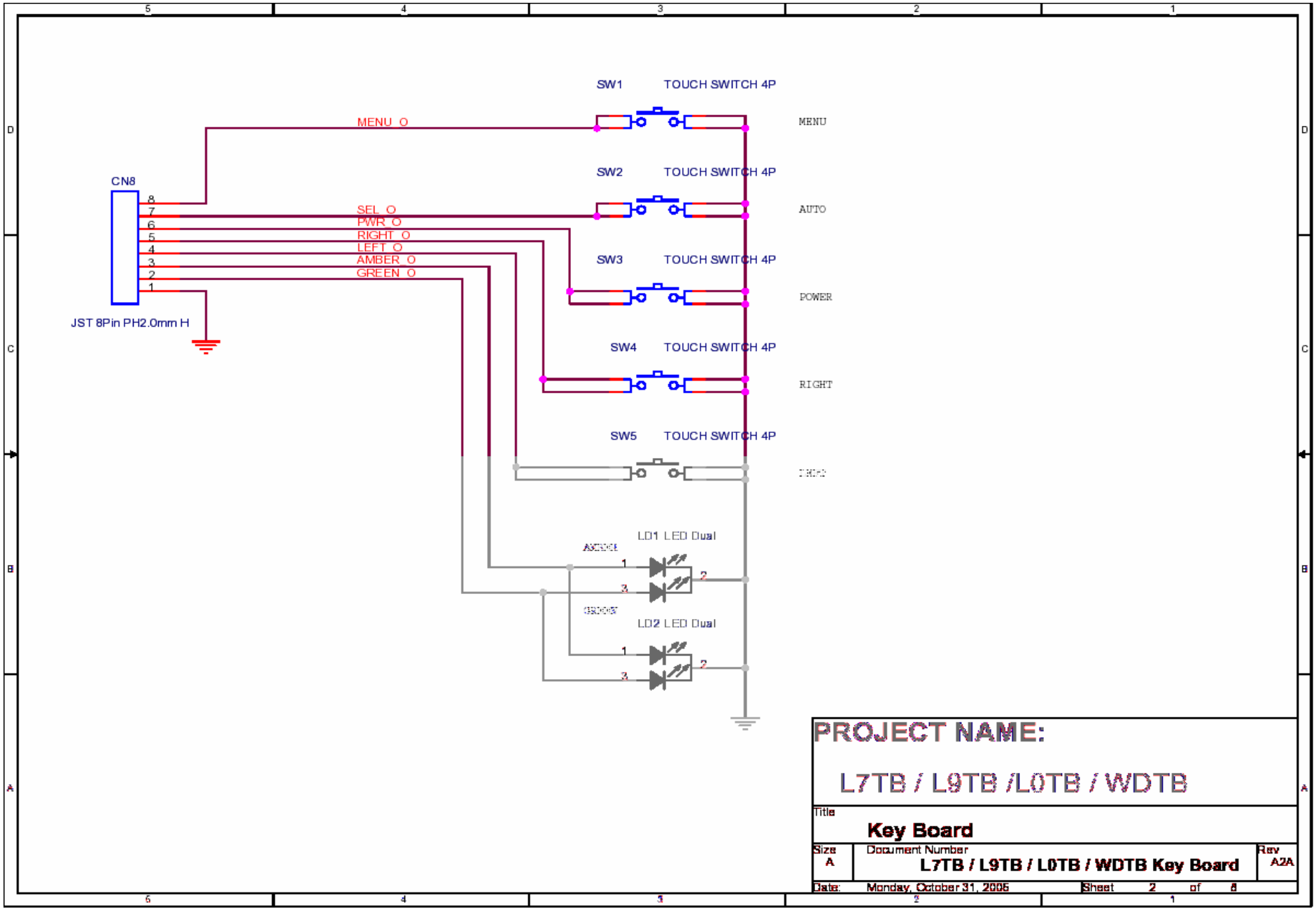

Vias (size 1x1 header) are provided for low inductance path to pwr and gnd traces for ESD diodes.
DVI-D
DIGITAL DVI EDID
ANALOG VGA EDID
D-type 15pin Female
Near VGA pins
PROJECT NAME:
L7TB / L9TB DUAL
Input
L7TB / L9TB DUAL gm5621


All decoupling caps close to respective power pins
3.3V Analog: 110mA
3.3V Digital: 82mA
1.8V Analogl: 21mA
1.8V Digital: 243mA
U4
gm5621 PQFP128
14.318 MHz
SOT23
NMBT3904L
Component top view
Bootstrap configuration:
Pin# | Default | UART on DDC
119 (PWM1/GPO_5) | UART on GPO; RA (4K7) RB (open) |
51 (GPO_0) | JTAG enable; RC(open) RD(4K7) | Jtag disable; RC (4K7) RD(open)
R136 | R137
Audio | 10K/6 | NC
No Audio | NC | 10K/6
option
G-PROBE
Disconnect CN4 during power up or reset, as this can affect bootstrap setting.
Cable Detection @ DVI_DET/VGA_DET
Cable Detection @ DVI_5V
PROJECT NAME:
L7TB / L9TB DUAL
Scaler / MCU
L7TB / L9TB DUAL gm5621


PC AUDIO-IN
SPEAKER OUT
Hi Muter (>3.5V)
Hi Stand-by(>3.5V)
PROJECT NAME:
L7TB / L9TB DUAL
Audio AMP
L7TB / L9TB DUAL gm5621
Wednesday, October 26, 2005


PANEL POWER
Q2 AO3415
LCDVCC
VCC12
+5V
R53 0/8/NC
R54 0/8
R55 82K/6
R57 82K/6
C61 2200pF/6
C62 2200pF/6
R56 10K/6
C63 0.1uF/6
C64 330uF/18V
Q3
DTC144EUA
PPWR
GND
CN5
1841 30P
C65 0.1uF/6
MMBT3904L
Component top view
KEYPAD CONECTOR
CN6 4501-10-10P-R
Menu
Sel
Power
Down
Up
Right
Left
LED Red
LED Green
LED_R
LED_G
Q4 MMBT3904
Q5 MMBT3904
R58 4K7/6
R65 4K7/6
R61 0R/6
R68 0R/6
C104 100pF/6/NC
C105 100pF/6/NC
C106 100pF/6/NC
C107 100pF/6/NC
C108 100pF/6/NC
C109 100pF/6/NC
C110 100pF/6/NC
C111 100pF/6/NC
C112 100pF/6/NC
3.3V_AVDD
FB8 BED-121L1-2601
LBADC1
LBADC2
2.48V Minus
1.65V Power
1.1V
0.58V
2.48V Right
1.65V Plus
1.1V Exit
0.58V Down
R59 2K2/6
R60 2K2/6
R62 1M/6
R63 2K2/6
R64 470R/6
R67 1M/6
R69 470R/6
R70 4K7/6
R71 1K/6
R72 2K2/6
R73 4K7/6
C71 0.1uF/6
C73 0.1uF/6
D21 Z5.6/NC
D22 Z5.6/NC
add for esd
PROJECT NAME:
L7TB / L9TB DUAL
Title
Panel CONN
Size B
Document Number
L7TB / L9TB DUAL gm5621
Rev A2A
Date: Monday, October 31, 2006
Sheet 7 of 8


CN7
HEADER-2X4/S D2.0
VCC12
GND
C102
0.1uF/6
C85
0.1uF/6
C86
0.01uF/6
C87
330uF/16V
L6
BED-121L1-2601
CHANGE TO 4A BEAD
+5V
C103
0.1uF/6
C99
0.1uF/6
C100
0.01uF/6
C101
330uF/16V
+3.3V
R92
10K/6
L5
10K/6
PBIAS
5
C92
1uF/6
MMST3906
Component top view
R100
4.7K/6
R99
1K/6
C95
1uF/6
Q12
SN7002E
Brightness
JP2
HEADER-2/R D2.54/NC
U12
AIC1117CY
VIN
VOUT
C97
0.1uF/6
EC4
10uF/16V
R101
200/6 1%
R103
330/6 1%
EC7
10uF/16V
C98
0.1uF/6
Vout=Vref x (1+RB/RA) + Iadj x RB
Vref=1.25V
Iadj=55uA
+4V
D23
D24
ML21PT
U13 AP1084
+1.8V
300mA
EC3
10uF/16V
R102
220/6 1%
R104
100/6 1%
EC5
10uF/16V
C96
0.1uF/6
H1
H2
H3
MTH276D126
AGND
PROJECT NAME:
L7TB / L9TB DUAL
Title
Power Supply
Size
B
Document Number
L7TB / L9TB DUAL gm5621
Rev
A2A
Date:
Monday, October 31, 2005
Sheet
8
of
8

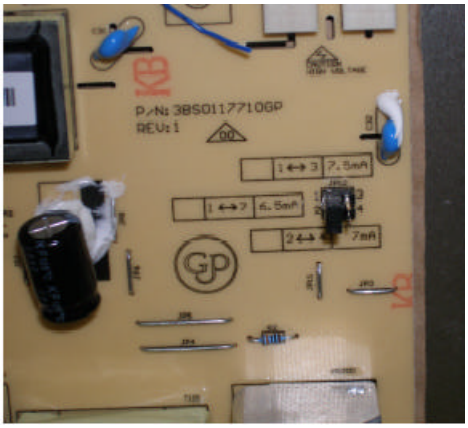

SW1 TOUCH SWITCH 4P
MENU
SW2 TOUCH SWITCH 4P
AUTO
SW3 TOUCH SWITCH 4P
POWER
SW4 TOUCH SWITCH 4P
RIGHT
SW5 TOUCH SWITCH 4P
MENU_O
SEL_O
PWR_O
RIGHT_O
LEFT_O
AMBER_O
GREEN_O
CN8
JST 8Pin PH2.0mm H
LD1 LED Dual
LD2 LED Dual
PROJECT NAME:
L7TB / L9TB /L0TB / WDTB
Title
Key Board
Size
A
Document Number
L7TB / L9TB / L0TB / WDTB Key Board
Rev
A2A
Date: Monday, October 31, 2005
Sheet 2 of 8

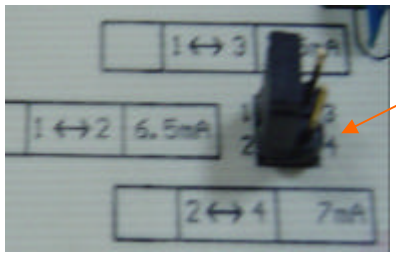
Chapter 8

Power Board Current set Information

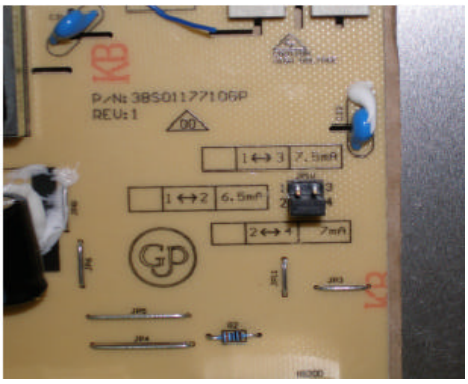
Power Board JP10 Seting

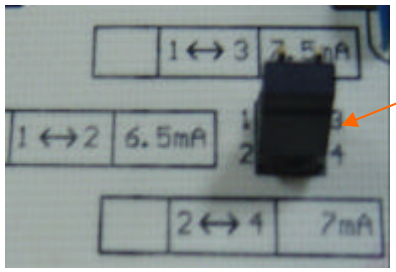
P/N	Model Name	Lamp Current	JP10
AAM190EG004	AUO M190EG01 V0	7.5mA	1-3
AA90ME13031	HannStar HSD190ME13-A02	6.5mA	1-2



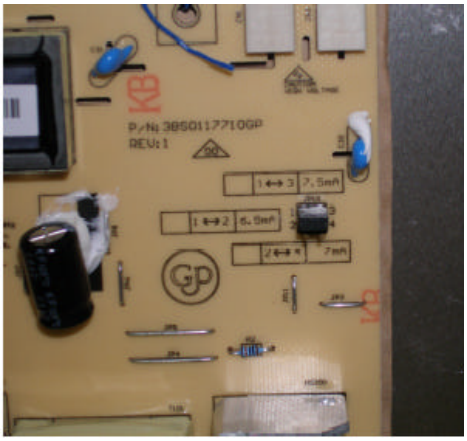


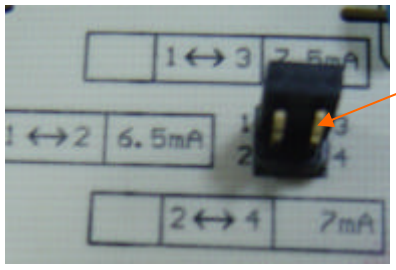
When the lamp current value is 6.5mA, the jumper should be done as the picture left shows





When the lamp current value is 7.0mA, the jumper should be done as the picture left shows





When the lamp current value is 7.5mA, the jumper should be done as the picture left shows